

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1859.—Vol. XLI.

LONDON, SATURDAY, APRIL 8, 1871.

(WITH SUPPLEMENT) {PRICE FIVEPENCE.
PER ANNUM, BY POST, £1 4s

MR. JAMES CROFTS, STOCK AND SHAREBROKER, No. 1, FINCH LANE, CORNHILL. (ESTABLISHED 1842.)

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

The rise in the price of tin has imparted great firmness to all tin shares, and very important advances may be looked for. Amongst others, the purchase of GREAT ROYALTON and ROCHE CONSOLS shares is PARTICULARLY RECOMMENDED. At the former mine a great improvement has taken place, and the agent reports that it never looked so well as now. At Roche Consols the works are progressing rapidly, and the shares should be secured.

Bankers: Metropolitan Bank.

MR. W. H. BUMPUS, STOCK AND SHAREDEALER, 44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the

following SHARES, free of commission:—
40 Anglo-Argentine, 11s. 3d.
15 Asheton, £24.
10 Australian Un., 10s. 6d.
20 Bradford Consols, £24s. 9d.
20 Bradford, £24.
25 Bwch Consols, 39s.
20 Caegynon, 16s. 3d.
20 Chiverton Moor, £24.
15 Cefn Consols.
75 Chontales, 7s. 9d.
5 Cook's Kitchen, £24.
1 Don Pedro, £2 16s. 3d.
2 Devon Great Consols.
4 Drake Walls, 20s. 6d.
100 Eclipse, 3s. 9d. prem.
5 East Lovell, £27.
10 East Basset.
W. H. B. transacts business in every description of shares at the best market prices, and free of commission.
Daily Price-List free on application.
Bankers: National Provincial Bank of England, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C. Every description of shares BOUGHT and SOLD at the best market prices.

MR. JOHN RISLEY, STOCK AND SHARE BROKER, 77, CORNHILL, LONDON, E.C. Bankers: London and Westminster, Lombury.

Wheat Grenville, East Wheat Grenville, Wheat Crebore, and West Caradon Mines strongly recommended, all being sound progressive properties, and likely to command a market value of from 100 to 200 per cent. more this year.

MR. JAMES STOCKER, 2, CROWN COURT, THREAD- NEEDLE STREET, LONDON, SHARES FOR SALE (many others not inserted) for cash or account:—

100 Wt. Chiverton, £23.
70 Taquari, 3s. 9d.
10 Great Laxey, £16.
100 Unl. Mexican, £3 11s.
15 Sweetland Creek, £44
10 So. Condurow, £6.
10 Great Vor, £29.
2 West Frances, £42.
5 East Lovell, £27.
100 Eclipse, 3s. 9d.
100 Roman Grav., £13.
20 Prince of Wales, 22s. 6d.
20 Rosewall Hill, £13.
10 Roman Grav., £13.
10 So. Condurow, £6 1s.
10 Sweetland Cr., £4 3s.
10 So. Aurora, £6.
10 Tankerville, £14.
60 Taquari, 3s. 9d. pm.
3 Van, £27.
40 Van Consols, £1 14s.
5 W. Chiverton, £32.
20 West Caradon.
20 West Maria, 27s.
25 West Tankerville.
£2 18s. 9d.
50 Ydanamutana.
W. H. B. transacts business in every description of shares at the best market prices, and free of commission.
Daily Price-List free on application.
Bankers: National Provincial Bank of England, E.C.

IMPORTANT TO INVESTORS IN BRITISH AND FOREIGN MINES, RAILWAY STOCKS, and other Securities of all descriptions. Dividends at the rate of 5, 10, and 15 per cent.

Consult Mr. JOHN B. REYNOLDS' SPECIAL LIST OF INVESTMENTS.
Sent free by post on application to JOHN B. REYNOLDS, Stock and Share-
dealer, 70 and 71, Bishopsgate-street Within, London, E.C.

MR. THOS. J. BARNARD'S MINING OFFICES, 175, 176, 177, and 178, PALMERSTON BUILDINGS, OLD BROAD STREET, LONDON, E.C.

REGISTERED OFFICES OF
THE QUEEN SILVER AND COPPER MINING COMPANY (LIMITED).
THE KING SILVER AND COPPER MINING COMPANY (LIMITED).
THE VIRTUOUS LADY MINING COMPANY (LIMITED).

PRICES OF SHARES THIS DAY.—QUEEN, 50s.; KING, £1 2s. 6d.; VIRTUOUS LADY, 30s.
The almost unprecedented success of the VIRTUOUS LADY for tin and copper, and the QUEEN and KING for silver, tin, and copper, blended with the amalgamation works, introduced for the extraction of silver from the lowest class silver ores upon the most scientific principles, place these properties before the public, not as a speculation, but as a mining investment.

The lists of shareholders include the nobility, clergy, gentry, and professional and influential business men throughout England.
Dated April 6, 1871.
THOS. J. BARNARD, Secretary.

JOHN LEAN, M.E., AND CO., STOCK AND SHARE DEALERS, 5, AUSTINFRIARS, OLD BROAD STREET, LONDON, E.C. J. L. is late manager of Silver and Copper Mines, Chili, and more recently from Cornwall, has had long experience in gold mining, and is thoroughly conversant with the Spanish and Portuguese languages.

Gold, Silver, and other Metallic Mines examined, surveyed, and reported on at home or abroad.
Stocks or shares negotiated in every kind of available security.
We cannot too strongly recommend the immediate purchase of EAST LLANGYNOG shares, at £3. We have 40 shares for sale. These should be bought at once for a considerable rise. We strongly advise their purchase. This extraordinary mine is yielding large quantities of ore, and will no doubt turn out to be one of the richest lead properties in Wales. Aberdaunt and Terras (Tin) should also be bought.

MR. G. D. SANDY, STOCK AND SHAREDEALER, 2, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C. (Late of 48, Threadneedle-street.)

NOTICE OF REMOVAL.
29, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established 16 years), has FOR SALE the FOLLOWING SHARES at prices annexed:—
40 Aberdaunt, 29s. 6d.
20 Asheton, 29s. 6d.
50 Anglo-Argentine, 10s. 9d.
20 Bedford Consols, 39s.
10 Bradford, 49s.
20 Blue Hills, £2.
20 Bwch Consols, £24s. 9d.
2 Caro Brea, £24.
2 Cefn Consols.
10 Chiverton Val., 26s. 6d.
10 Cefnphilly Coly., 42s.
1 Devon Consols, 39s.
1 Dolcoath, £14.
50 Drake Walls, 19s. 6d.
20 Don Pedro, £2 13s.
20 East Llangynog.
50 Eclipse, 4s. prem.
5 Eberhardt, £33.
10 Esgair Lle.
W. M. and Co. have business in New Grenville, Excelsior, Wheat Street, Terravack, Plynlimmon, Nangiles, West Pant-y-go, West Esgair Lle, and Rose and Chiverton.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 21 years), is a SELLER at net prices of:—

20 Roman Grav., 5 West Chiverton, 50 Terravack, 10 Great Vor, 5 Pendarves United, 100 Crebore, 25 Rose and Chiverton, 60 Prince of Wales, 20 Bradford, 8 East Llangynog, 2 Minera, 5 Tankerville, 100 New Beldon, 50 West Caradon, 20 Devon Consols, 30 North Croft, 25 Cefn Consols, 20 To Breen, 20 East Grenville, 40 Aberdaunt, 35 West Jewell, 60 Gawton, 5 Wheat Jane, 10 West Tre-mayne, 25 West Cumberland, 70 Nangiles, 200 New Dale, 3 West Frances, 120 Chiverton, 25 Hington Down, 70 Great Caradon, 130 West Pant-y-go, 100 East Aurora, 100 Port Phillip, 200 Anglo-Brazilian, 120 Taquari, 200 General Bra-sil, 80 Sweetland Creek, 60 Alamo.
SPECIAL BUSINESS in Anglo-Brazilian, West Frances, Terravack, Minera, West Basset, Rose and Chiverton, and Roman Gravels.

THE SHROPSHIRE LEAD MINING DISTRICT. PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Thursday, April 6, No. 629, contains a further continuation of the Review of the Shropshire Lead Mining District.

MR. PETER WATSON, STOCK AND SHAREDEALER, 79, OLD BROAD STREET, LONDON, E.C. Bankers: The Alliance Bank, and Union Bank of London.

THE SHROPSHIRE LEAD MINES.
PETER WATSON'S "WEEKLY MINING CIRCULAR AND
SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," &c.,
of Thursday, April 6, No. 629, price 6d. each, forwarded on application, contains
important information on the leading Dividend Mines of Shropshire and Wales,
and the Dividend and Progressive Mines of Cornwall.

MR. W. H. COUELL, No. 42, CORNHILL, LONDON, E.C. Daily price-list on application.

MR. T. A. MUNDY, STOCK AND SHAREBROKER, 38, BISHOPSGATE STREET WITHIN, E.C. Bankers: City Bank.

MR. Y. CHRISTIAN, STOCK AND SHAREDEALER, 11, ROYAL EXCHANGE, E.C. Bankers: Bank of England.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER, No. 30, GREAT ST. HELEN'S, LONDON, E.C., transacts business at net prices in every description of security. * * * Eight edition, "How to Invest, and What to Select." Now ready, post free for seven stamps.

Buyer or seller of shares at the closest prices in Bradford, Bwch Consols, Chiverton Valley, Fedw, South Darren, Cafartha, Great Lovell, East Beton, West Gololphie, Llywernog, Rhydallog, Providence, West Chiverton, and Frank Mills.

MR. HENRY MANSELL, STOCK AND SHAREDEALER, 34, GREAT WINCHESTER STREET, LONDON, E.C. EAST LLANGYNOG MINING COMPANY (Limited).—This mine is opening out beyond the most sanguine anticipations. The shares have been in good demand. A large sale of lead will soon be made. Mr. H. M. strongly advises the immediate purchase for a great rise from present quotations, and can offer 50 shares (or part of same), at £2 15s. each net.

West Jewell, Taquari, South Condurow, Great Vor, and Terras recom-mended.
A Daily List of Closing Prices sent to clients free on application.
Bankers: London Joint-Stock Bank.

MESSRS. W. DUNN AND CO., STOCK AND SHARE- DEALERS, 3 AND 4, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C. Bankers: National Provincial Bank of England.

FOR SALE, at prices affixed:
20 Aberdaunt, £1 5s. 6d.
20 Cashwell, £3.
20 Drake Walls, 19s. 6d.
20 East Llangynog.
5 East Lovell, £27 5s.
5 East Terras.
5 Eberhardt & Aurora.
£24 10s.
15 Great Rock, £1 2s. 6d.
40 Great So. Chiverton.
5 Great Vor, £29 5s.
25 Gt. W. Lovell, £1 7s. 6d.
10 No. Croft, £2 12s. 6d.
30 Pen'Alit, 11s. 6d.
10 Penhalls, £4 16s. 8d.
25 Plynlimmon, £1 16s. 8d.
20 Prince of Wales, £12
15 Rhydallog.
10 Roman Grav., £13.
25 Rosewall Hill, £1 1s. 6d.
20 South Cardigan Bay,
offer wanted.
5 Tankerville, £14.
5 Taquari Gold, £1.
20 Victoria Lady.
30 West Jewell.
10 W. Tankerville, £217 6

SILK AND CO., STOCK AND SHARE BROKERS, 32, REGENT STREET, PICCADILLY, W. We are prepared to negotiate the purchase or sale of STOCKS and SHARES at the closest market prices, for CASH only. FRANK LIMMER, Secretary.

MR. H. B. RYE, STOCK AND SHAREBROKER, 77, OLD BROAD STREET, E.C. (Established Twenty-five Years), is a BUYER or SELLER of the following shares:—

West Basset.
Cook's Kitchen.
East Lovell.
Great Vor.
North Croft.
South Condurow.
South Frances.
Pendarves United.—An offer wanted for a share, and no reasonable one
will be refused.
N.B.—With strangers, references exchanged.

THE CITY EXCHANGE MINING AND INVESTMENT OFFICES, 32, NEW BROAD STREET, LONDON, E.C. ALFRED FISHER, MANAGER.

We advise the immediate purchase of shares in the EAST LLANGYNOG MINING
COMPANY (Limited). We have 100 shares for sale at £3 per share. Another
discovery of ore has just been made; the leader of lead is 10 in. wide, and the
lode is very similar in character as well as the lead to that of Tankerville. It
is believed this mine will commence returning ore at once. We hear that they
will sell 50 tons—their first parcel, now preparing for the market—and early
dividends are expected. This is the cheapest stock in the market. See the
agent's report.

THE TERRAS TIN MINE shares investors will do well to buy. It is stated they
have a lode worth 1000 per fathom. We have only 55 that we can offer for sale.
Apply at once. This mine will soon rank amongst the best dividend-paying
mines in the West of England.

ABERDAUNT.—The recent discovery of lead in this mine is holding out be-yond
expectations, and the property never looked so well as at the present time.
Wanted to purchase, 500 shares in the EAST LLANGYNOG at a shade under the
above price.

Business promptly transacted in every available security.
The following shares should be purchased:—TAQUARI, ABERDAUNT, EAST
LLANGYNOG, TANKERVILLE, DEVON CONSOLS, and GREAT VOR shares.

MR. F. W. MANSELL, STOCK AND SHAREDEALER, 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C. Daily List of closing prices in British and Foreign mines every evening (free). References exchanged. Bankers: London Joint-Stock Bank.

PERRAN WHEAL VYVYAN SILVER-LEAD MINE (Limited).—Mr. F. W. MAN-
SELL calls the special attention of the public to the advertisement of this mine.
Prospectuses, with every information, forwarded on application.
1, Pinner's-court, Old Broad-street, E.C.

ENDEAN AND CO., STOCK AND SHAREDEALERS, BRITISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES, 55, GRACECHURCH STREET, LONDON, E.C.

EAST LLANGYNOG.—We especially advise the immediate purchase of shares
at £3 each for a rise or investment. We have 75 shares for sale. From the
important discoveries made, hundreds of tons of lead is opened upon. The ore
is being brought to surface, containing rocks of solid lead from 1 cwt. to 7 cwt.
each, and parcels of ore going into the market within a few weeks of the for-mation
of the company, and the adjoining mine on the same lode has paid over
£1,500,000 in profits, we feel assured this mine will be in the Dividend List al-most
immediately. We strongly advise it to our clients. Investors, by pur-chasing
largely at present prices, cannot fail to make colossal fortunes.

TERRAS TIN MINE.—We advise the purchase of these shares without delay,
being convinced that it will soon be one of the leading tin dividend-paying
mine in the county. The company is limited. We advise only limited liability
companies, cautioning investors to avoid the Cost-Book System as they would
a serpent.

ABERDAUNT is improved. These shares will have a considerable advance
in price, and should be bought for investment.

Our Register is open for the benefit of clients. On receipt of One Guinea, in
stamp, they will be entitled to the fullest information and best advice that we
can give touching all properties for 12 months from date of their subscription.

All negotiable stocks dealt in for cash or account. Our bureau of mines and
guide to bona fide investments, with price current, will be forwarded free to
clients on application.

ENDEAN and Co., 55, Gracechurch Street, London, E.C., Members of the Lon-don
Exchange, Lombard-street.

MR. CHARLES THOMAS, MINING AGENT, AND GENERAL SHAREDEALER, 3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition. Now ready, post free, sixpence.
INVESTMENTS AND SPECULATIONS
FOR 1871.
CHARLES THOMAS, 3, Great St. Helen's, London.

SELF HELP TO PATENT LAW Also, price 1s., COLONIAL AND FOREIGN PATENT LAWS. By GEORGE DAVIES, C.E.

Published at the Office for Patents, 4, St. Ann's-square, Manchester, by GEORGE
DAVIES, C.E. (late John Davies and Son).
Established 1835.

MESSRS. G. LAVINGTON AND A. PENNINGTON, 44, THREADNEEDLE STREET, E.C., STOCK AND SHAREDEALERS have SPECIAL BUSINESS in the undermentioned:—

Pacific Gold. East Pool. Mary Ann.
Sweetland Creek. Tankerville. Providence.
Marke Valley. Taquari. Broadway.
Dolcoath. Tincroft. Margaret.
Sellers of the above are invited to communicate without delay.

TO INVESTORS.—NOW READY. LAVINGTON AND PENNINGTON'S "MONTHLY RECORD OF INVESTMENTS," containing an exhaustive Review of the British and Foreign Stock and Share and Money Markets, &c., with an enumeration of safe investments, paying from 10 to 20 per cent. Price 6d. per copy, or 5s. annually. G. LAVINGTON and A. PENNINGTON, 44, Threadneedle-street, London, E.C.

MR. JOHN MOSS, STOCK AND SHAREDEALER, ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C. Bankers: City Bank, Finch-lane, E.C.

MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND SHAREDEALER, No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

Buyer or Seller of every description of negotiable securities at current price
net.
Bankers: City Bank, Finch-lane, E.C.

CALDBECK FELS, NORTH TRESKERBY, AND FRONTINO. MR. C. A. POWELL has SPECIAL BUSINESS in these SHARES.

CWM YRON.—MR. C. A. POWELL begs to direct SPECIAL ATTENTION to this VALUABLE PROPERTY. He has business in the shares, and is prepared to furnish all particulars relating to the company upon application.

BARTLETT AND CHAPMAN, STOCK AND SHARE DEALERS, 36, CORNHILL, LONDON, E.C.

Dividend and Progressive Mine Shares of every description bought or sold at
close market prices.
Specially recommended for immediate investment.—The STAFFORDSHIRE
BRICK AND TILE COMPANY's shares, at par (£2 fully paid). No liability. Safe
for dividends of 25 per cent. Full particulars will be forwarded on application.
Letters and telegrams promptly attended to.

MR. T. E. W. THOMAS, STOCK AND SHAREDEALER, 3, GREAT WINCHESTER STREET BUILDINGS, E.C. Business operations in Mining Shares negotiated at close market rates. Daily Price-List on application.

Parties holding mining shares not having daily quotations, can learn their
correct market value on application to Mr. THOMAS.

MESSRS. E. BREWIS AND CO., STOCK AND SHARE DEALERS, 18, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Opposite the National Provincial Bank of England.) Telegrams promptly attended to. Bankers: The Alliance Bank, London, E.C.

MR. W. TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C., is prepared to transact BUSINESS in all descriptions of marketable SHARES on the most favourable terms, and has SPECIAL BUSINESS in the leading Foreign Mines.

The reports from the Eclipse Mine are most favourable, and point to a great
rise in the price of shares.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER, 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

MESSRS. J. HUME AND CO., STOCK AND SHARE BROKERS, 74, OLD BROAD STREET, LONDON, E.C., Have business to transact in every description of Mining Shares, and are pre-pared to negotiate at closest prices.

EDERHARDT AND AURORA.—J. H. and Co. bought largely for clients at £3
premium and upwards. The shares are now £16 to £17 pm., giving net. per cent.
profit in two or three months. Two or three mines will rise similarly
during the next month or two.

Bankers: The London Joint-Stock Bank.

THE MINING SHARES INVESTMENT COMPANY (LIMITED) is PREPARED to RECEIVE APPLICATIONS for LOANS to be MADE by the COMPANY on the SECURITY of SHARES in DIVIDEND- PAYING MINES.

By Order of the Board, CHARLES HURLBATT, Secretary.
Offices, 6, Queen-street-place, London, E.C.

MR. THOMAS CARTER, MINE SHAREDEALER, CAMBORNE, CORNWALL. BUSINESS TRANSACTED, at close market prices of the day, in all the LEADING SHARES.

SAFE AND PROFITABLE INVESTMENTS. MESSRS. CAMERON AND CO., SHAREBROKERS, CHESTER, will forward on application IMPORTANT INFORMATION with regard to TWO MINES which are certain to have a GREAT RISE IN PRICE in a few months. Messrs. CAMERON and Co. devote special attention to Mines and Railways; they also effect Purchases and Sales, on the best possible terms, in Mines, Railways, Insurance, Hotels, Banks, Canals, Steam Ships, &c.; and every other description of Stocks, whether English, Foreign, or Colonial.

OFFICES: BRIDGE STREET CHAMBERS, CHESTER.

MR. R. PERCY ROBERTS, FINANCIAL AGENT, 60, ENGLISH STREET, CARLISLE.

HOOKER AND CO., STOCK AND SHAREDEALERS, LIFE, FIRE, AND MARINE INSURANCE AGENTS, 9, UNION COURT, OLD BROAD STREET.

We recommend immediate investment in the EAST LLANGYNOG LEAD MINING
COMPANY (Limited), the shares in which are in great demand; as we antici-pated,
have advanced in price, and are still rising. Important discoveries
have been made during the last few days.

At ABERDAUNT a fourth parcel of lead is being prepared for market. The
mine looks more promising than ever throughout.

Investors are advised to purchase quickly into selected Mexican mines. Con-fidential
information to clients only.

At the rate of One Guinea per annum, we give investors information on legiti-mate
mining properties in the United Kingdom.

Our Circular for April will contain mineral statistics of the highest value, as
well as a list of approved mining and other investments. Intending investors
should apply for a copy immediately. Price 6d., free to clients.

CWM RICKET LEAD MINING COMPANY (Limited).—We can offer 40 shares in
this undertaking at £4 per share. The Cwm Ricket is near the Van Mine, the
shares of which, within a very short time, advanced from £1 5s. to over £23.
FOR SALE:—20 Aberdaunt; 3 Minera, offer wanted; 40 Guerrero Gold;
30 New Rosario, fully paid, £1 5s.; 70 Harewood Consols, 5s.; 40 Cwm Ricket,
£4; 30 New Clifford, offer wanted; 30 East Llangynog, 20 Brynamor, 15s.,
offer wanted; 20 El Chico; 10 City Offices.

FOR SALE.—A splendid FREEHOLD PROPERTY, near TUNBRIDGE
WELLS. Particulars on application.
HOOKER and Co., 9, Union-court, Old Broad-street, London.

Wheal Burrow and Butson Consolidated

MINING COMPANY (LIMITED).

Comprising two important Lead, Blende, and Copper Mines, near St. Agnes, Cornwall,
ALSO KNOWN AS WHEEL DAVEY,
 IN THE MANOR OF MITHIAN, ADJOINING PERRANZABULOE.
 To be incorporated under the Companies Acts, 1862 and 1867, limiting the liability of shareholders to the amount of their respective subscriptions.

PRELIMINARY CAPITAL, £13,000.

Divided into 80 "A," or 10 per cent. preference, shares, and 50 "B," or deferred, shares, of £100 each.
 No allotment will be made unless at least 50 A shares are subscribed for.
 Calls on the A shares will be payable as follows, viz.:—£2 10s. on application; £27 10s. on allotment; £30 in two months after; £20 in four months, and £20 in six months.
 The A shares will be entitled to a preference dividend of 10 per cent. on the amount paid up, out of the profits made in each year; after payment of which the profits will be equally divided between the A and B shares.
 The B shares will be issued as fully paid-up to the vendors of the mines, and will represent the consideration for the lease or license, no cash being required for this purpose.
 No promotion money will be charged, and in the event of no allotment being made, all preliminary expenses will be paid by the vendors, and the £2 10s. paid on application returned without deduction.
 The Articles of Association will be "Table A" of the Companies Act, 1862.

BOARD OF DIRECTORS.

CHAIRMAN—CHARLES MORRIS, Esq. (Chairman of the Fortuna Lead Mining Company, Limited, and Director of the Bank of Australasia).

S. E. ILLINGWORTH, Esq., 9, Norfolk-crescent, Hyde-park.

J. W. WILLIAMSON, Esq. (Director of the United Mexican Mining Company).

LOCAL DIRECTORS.

WILLIAM HORTON DAVEY, Esq., Bochym, Helstone, Cornwall.

GEORGE S. ARNALL, Esq., Merchant, Redruth, Cornwall.

BANKERS—Messrs. JOHN MICHAEL WILLIAMS and Co., Redruth (West Cornwall Bank).

Messrs. GLYN, MILLS, CURRIE, and Co., 67, Lombard-street, E.C. (London Agents for the West Cornwall Bank).

SOLICITOR—JAMES ARTHUR MORGAN, Esq., F.G.S., 47, Finsbury Circus, E.C.

AUDITORS—Messrs. J. WADDELL and Co., New Poultry Chambers, Poultry, E.C.

MANAGER AND SECRETARY—HENRY VON USTER, Esq., F.G.S.

OFFICES (pro tem.)—47, FINSBURY CIRCUS, E.C., LONDON.

PROSPECTUS.

This company is formed to acquire a lease or license of the above mines for 30 years at a royalty of 1-18th, or a rent of £20 per annum, including the royalty; to purchase and erect the machinery necessary for unwatering the mines to their present depth of about 37 fathoms, and for further sinking the shafts and winzes, and extending the levels, and raising and dressing the ores of lead, blende, and copper which will be laid open as soon as the mines are drained to the 20, 30, and 40 fathom levels.

The geological and geographical position of these mines is unquestionable, being within the celebrated Chiverton group of silver-lead mines, about three miles west of the rich West Chiverton (paying 30 per cent. per annum dividend), the lodes of which pass through the whole length of Wheal Burrow and Butson. The engine-shaft (37 fathoms deep) is near the centre of the two mines within two miles of the Port of Saint Agnes, and seven miles of either Truro or Redruth Railway Station by excellent roads.

These mines were worked to great profit some years ago, and were discontinued in consequence of the death of one of the owners, and of the produce turning mostly into jack, or blende (sulphide of zinc, or zinc ore), which at that time was unsalable when associated with a certain percentage of copper, and when free from copper brought only £1 5s. to about £2 per ton.

The present price of the blende, or zinc ore, which can be raised even before the mines are completely unwatered, is calculated to be not less than £3 15s. per ton, there being now no difficulty in treating zinc ores mixed with copper or lead. An assay made by Messrs. Johnson, Matthey, and Co., in June, 1870, produced—zinc 48.50, copper 2.25, and silver 1.050 oz.

Wheal Butson produced above and about the 32 fm. level, with imperfect machinery, upwards of £50,000 worth of copper ore. Precipitated copper to the value of many thousands of pounds was collected from the mine water by the simplest possible method. With improved appliances the quantity can easily be increased. This is important, not only as a source of revenue, but as a proof of very large deposits of copper ore.

The gossan found on the back of the main lode, and of which many thousands of tons can probably still be raised, has been largely worked away, and some assays of it have produced 42 ozs. of silver and 2 ozs. of gold, or a money value of about £18 per ton.

By the accompanying reports it will be seen that a return of from 100 to 200 tons of jack (zinc ore) can almost immediately be raised monthly, which will give a handsome profit, with every probability of speedy improvements in quantity and quality.

The greatest value of the blende, however, is that, according to the experience of late years in all the most successful mines, such as the Van, and the Duffell, in Wales, and West Chiverton, and others in Cornwall, this ore has been the sure precursor of large deposits of lead.

In the eastern part of Wheal Burrow many tons of silver-lead ore have been raised and sold from the adit, without any level having been driven in the very extensive virgin ground. There can be no doubt but that under the adit the lead will greatly improve.

Referring to the chances of immediate and valuable discoveries, the following extract from the report by Captain Samuel George, M.R., who recently inspected part of these mines, is of importance.

"I find, to my surprise, east of the engine-shaft the lode, all above and below, so far as the water would allow, has been all taken away by tributaries since the mine ceased working. At the extreme end of the workings eastward (see E. and W. Section *), in engravings which accompany the prospectus) there is a cross-course which has never been cut through. This could be done at once, when, I have no doubt the lode will be found as productive on the other, or eastern side, as it is proved on the western side."

Besides the benefit of the ore already discovered, this company will have the advantage of shafts and levels which have been made at an expenditure of time of at least five years, and according to a carefully detailed and moderate valuation (which can be seen at the office), of the money value of £23,000.

To illustrate the spirit with which the operations have been commenced, it suffices to quote from the detailed valuation that the north adit is of the length of 350 fathoms, the south cross-cut adit of 234 fathoms, and the adit level on the main lode 627 fathoms, making in all 1211 fathoms, or one and one-third of a mile of driftage at (say) 25 fathoms from surface, all of full height and width, and executed in the best miner-like manner.

The capital now sought is chiefly required for the purchase of machinery, which can be bought good second-hand, in consequence of the depression of the price of copper, at about one-third of its original cost. The value of this machinery will, with the revival of mining in Cornwall, considerably increase.

Responsible engineers will be glad to enter into contracts to supply pumping, crushing, and dressing machinery, and to execute the whole of the erections, included in a detailed estimate (also to be seen at the office) for the sum of £3000.

The accompanying reports are by practical miners, some of whom worked in these mines before they were discontinued.

The ultimate object of the company is, after the mines have been fully reopened, and sales of ore made, which can be accomplished in about four months after the erection of the necessary machinery, to form an enlarged company with a capital adequate to purchase of this company the lease, machinery and discoveries, with the reserves of ore, at a price which shall fairly represent their value, as a going concern, but this will only be carried out by a special resolution of the shareholders.

It is confidently anticipated that such sale will produce a large profit even at a formal valuation.

The adoption of Table A. of the Companies Act, 1862, as this company's Articles of Association, is a guarantee that every possible care is taken to protect the interest of the shareholders, such table having been prepared for and approved of by Parliament.

Application for shares in the annexed form may be made to the secretary or solicitor at the temporary offices of the company.

The only agreement affecting the company is dated the 16th day of March, 1871, and made between the vendors of the one part and the trustee for the company of the other part.

REPORTS.

Captain SAMUEL GEORGE, Mining Engineer, Redruth, Cornwall.
 Redruth, Cornwall, July 21, 1870.—At your request, I have carefully inspected, both underground and surface, "Wheal Davey," better known as "Wheal Burrow and Butson" Mines, situated in the manor of Mithian, in the parish of St. Agnes, Cornwall. I find the set about 550 fathoms east and west on the run of the lodes, which are eight in number, and about 400 fathoms north and south. In consequence of the mine being full of water to the adit level, I have only been able to survey this part of the mine, and not without some difficulty. The adit, which is about 25 fathoms from surface and driven on the main lode, I find to my surprise, east of the engine-shaft, the lode all above and below, so far as the water would allow, has been taken away by tributaries since the mine ceased working. This I consider a very important feature for the ground below, as there is no level below the adit in this direction for upwards of 200 fathoms in length. When levels are continued from the engine-shaft at a greater depth I consider you have every reason to expect profitable ore ground and in large quantities. At the extreme end, or western part of the mine, and the ground which has been opened out at the deep levels has been worked very little indeed, particularly eastward, which I consider the most important part of the property. The machinery which will be required; say, nothing less than a 60-in. pumping engine; the engine-house, which is at present standing, must be re-built; the stack or chimney is good. This engine should be all until the mines are cleared up to bottom; horse wheels will be sufficient for all winding purposes, in fact, all surface work should be limited to what is only required. You must bear in mind at present there is no machinery whatever on the property, but I should say £4000 to £5000 will be fully sufficient to get the mines in full working order, and with this sum it will require care, judgment, and economy, and practical experience. Situated as the mines are in the celebrated Chiverton district, and looking at the strata of ground which are quite congenial to lead, copper, and

blende, and the amount of work done in the eastern part of the mine since it ceased working by tributaries on their own account, I should say you have every chance of success, and that you are safe in recommending it to your friends. In fact, I know of no better piece of mining ground at present in the county, and provided it was placed in safe hands to manage in this county, I should not hesitate to take an interest in the undertaking myself. S. GEORGE, M.R.

* NOTE.—See * in the east and west section.

Mr. JOHN CHRISTOPHER, Miner and Farmer, St. Agnes, Cornwall.

WHEAL BURROW AND BUTSON MINES.

St. Agnes, April, 1870.—The following is my report on the above mines. The mines contain 19 or 21 east and west lodes, and two or three cross-courses, in the last working a large quantity of copper and blende was raised, but, owing to blende bringing only a very low price at that time, the mines were abandoned, leaving most excellent prospect for further development. The depth of the Wheal Burrow engine-shaft is 62 fathoms under adit, or 86 fathoms from surface. At this depth a great improvement took place both in the character of the strata and the value of the copper, which fetched £9 10s. 6d. per ton. A large quantity of Jack (blende) and copper mixed, which was then only worth from 20s. to 30s. per ton, can now be raised and sold at from £4 to £5 per ton. The lodes in this mine have proved productive from Tywarhayle, 2½ miles to the west, to East Chiverton, including West Chiverton, Chiverton Moor, and Chiverton Valley, to the east, a distance of another 2½ miles, making together 5 miles that these lodes have been partially proved and found productive. The work already done and available to a new company is worth at least £20,000, the great gossan (or main) lode is from 3 to 10 ft. wide, and has produced from the gossan silver and gold. Under this gossan thousands of tons of copper and blende have been raised and sold; in fact, the lodes, after the engine ceased working, raised at and above the adit level, upwards of 2000 tons of copper and Jack, and also extended the adit south of the engine-shaft 150 fathoms, and opened several lodes of great promise, which will be found valuable for a new company to operate on. I would advise a 59 or 60 in. cylinder engine, 10 ft. stroke, and 12 in. pitwork, to clear up the engine-shaft, also the Shop, Tonkin's, Williams, and Shop shafts. You have a large quantity of a large quantity of Jack mixed with copper at once, that will pay the monthly cost, if not leave a profit. At the eastern part of the mine the strata are quite altered from copper bearing to that of silver-lead, which is near to Great West Chiverton silver lead mine, which adjoins this mine. In the last working large quantities of precipitated copper were produced by laying down scrap iron in the adit and let the water pass over it. I would now recommend tanks to be fixed at surface, and an engine to pump the water from one tank to another. The water afterwards would serve for condensing and dressing purposes. In taking the whole bearings belonging to this mine into account, the present shallow depth, the number of lodes left unworked, and the several shafts already sunk to resume the work quickly, the ore already laid open to be taken away after the engine is again erected, the mine drained and cleared, I firmly believe this mine to be one of the surest to be made to pay, if properly developed, now left unworked. To my confidence in the undertaking, provided a company will work it carefully and honestly, I shall feel pleasure to take a good interest in it, and as a shareholder.

J. CHRISTOPHER.

Report by Mr. WILLIAM TIPPET, now a Farmer on Wheal Davey Estate, who was a Miner, and worked in these Mines under the Messrs. DAVEY at and above the Adit Level.
 Wheal Davey, near Mithian, St. Agnes, June 4, 1870.—I worked in these mines under Messrs. Davey and Co. for some time at and above the adit level, and worked on the "White Jack Lode," south of the engine-shaft, lode 2 feet wide; 7 in. of it was solid as a brass pan, but I did not work there until this part of the mine was stopped. The water on this lode was drained 10 fathoms under adit by means of a horse-wheel and pumps. I also worked on the great gossan lode about the same time. There is a large quantity of Jack and copper left in the mine untouched, because it would at that time not sell when mixed with copper. I believe if the engine were again erected and the mine drained to the 30 fathom level you could raise from 100 to 200 tons of Jack monthly. And when you get to the bottom of the engine-shaft you are sure to find a good stratum and high-priced copper. The country around the lode is greatly altered for the better during the last 10 fathoms of sinking. If you can get £1 per ton for Jack and copper you will have a first-rate mine almost immediately you get the mine drained to the 30 fathom level.

WILLIAM TIPPET.

Mr. PETER HARRIS, Miner and Tributer, Goonbell, St. Agnes, Cornwall.

REPORT ON WHEAL BURROW MINE.

June, 1870.—I worked as a tutwork man and also as a tributer in this mine for many years. It is about 30 years since the engine ceased working. Since then I worked under Messrs. Davey and Co. (the freeholders) above the adit level, and I know the mine from the surface to the bottom of the engine-shaft, besides Jack (sulphide of zinc or blende). The engine-shaft is sunk to the 62 fm. level under adit, perpendicular. The lode comes into the shaft at the 50, and as the lode underlies south they had to drive south at the 62 to cut the lode. They then turned, and drove west on the course of the lode a few fathoms, and raised several tons of copper ore, which sold for £9 10s. 6d., or £9 12s. 6d. per ton. At the 50 fm. level, round the engine-shaft at the bottom of the mine I cut a cross-cut of the lode, and found it to be the same lode as the one working in consequence of the death of one of the owners. A cross-cut level is driven north from the engine-shaft at the 40 fm. level, and cut the lode; also another at the 30 and 20, but no lode was raised by that party in the latter levels. In all the other shafts the lode has been cut at the adit level, and at that depth large quantities of copper and Jack were raised and sold. No. 1 shaft is the eastern one, which is no deeper than the adit; there the country changed and produced silver-lead; this was done long after the engine worked. No. 2 shaft is the west of No. 1, and called in the last working the east shaft, which is not deeper than the adit level. There they raised copper and Jack. No. 3 shaft is west of No. 2, and formerly called Ladder Road shaft. This was worked east and west, but not deeper than the adit level, and a large quantity of copper and Jack has been raised since the engine ceased working. No. 4 shaft is west of No. 3, and called Tonkin's shaft, which is sunk 20 fathoms under adit; very little has been done under adit, but plenty at and above adit. No. 5 shaft is west of No. 4, and called Shop shaft, and north of engine-shaft 24 fathoms; this shaft is sunk 20 fathoms under adit, and not much done under it, but a large quantity of ore taken at and above. No. 6.—This shaft is Quarry shaft, and sunk 10 fathoms under adit, but not holed to any level under adit; here there has been a large quantity of Jack and copper taken, and a large quantity of gossan producing silver, some of which is now to be seen at surface. No. 7.—This shaft is called Williams, and sunk 10 fathoms under adit; a lot of old men's workings are about this shaft, and from this to Shop shaft (No. 5). The former party only drove the cross-cut of the lode, leaving the rest of the mine untouched. No. 8.—This shaft is called Davey shaft; here a caunter crossed the main lode, and large quantities of copper were raised at the junction of both lodes. Further west is Wheal Butson old mine, belonging to this sett. A flat-rod shaft was sunk, and Burrow engine worked it; here many thousands of tons of copper ore have been raised and sold. The lode at Tonkin's shaft is 10 to 12 feet wide, and a large quantity of copper and Jack will be raised here when the mine is again worked. There is a large quantity of Jack and copper left in the mine, and can be raised monthly in other parts of the mine. The machinery consisted of a 50-in. cylinder engine, 10-foot stroke in cylinder, and 7 feet in shaft; 14-in. pit work; water 3 strokes per minute in summer, and 4 strokes in winter. There was no crusher erected or jiggling machines, and the whole of the dressing of ore was done by hand. There was no drawing machinery; it was all done by horses—three every six hours, in one winch. Many thousands of pounds worth of precipitate of copper was secured by causing the water from the mine to run over scrap iron. I know of no such good speculation in the neighbourhood of Mithian as Butson and Burrow Mines.

PETER HARRIS.

FORM OF APPLICATION FOR SHARES.

To the Directors of the Wheal Burrow and Butson Consolidated Mining Company (Limited).
 GENTLEMEN,—Having paid to the bankers of the company the sum of £s being a deposit of £2 10s. per share on "A" Preference Shares in the company, I hereby request you will allot me that number, and I hereby agree to accept the same or any less number that may be allotted to me on the terms

of the prospectus, and I agree to pay the sum of £27 10s. per share on allotment, and authorise you to insert my name on the Register of Members for the number of shares allotted to me.

Usual signature
 Name in full
 Residence
 Profession
 Date.....

MESSRS. OXLAND AND HOCKING'S
PATENT SELF-ACTING CALCINER,
 FOR BURNING OR ROASTING TIN,
 And other ores containing Arsenic, Sulphur, and other volatile matters.

This caliner has now been in full operation for upwards of two years, and its efficiency may be judged by the following testimonials:—

To Messrs. Oxland and Hocking.—We have pleasure in stating that your caliner has been in full work in these mines for upwards of two years, and continues to give every satisfaction. We believe it to be superior to any other kind of caliner yet erected for burning tin ores, the ores being better burnt, and effecting a great saving of fuel.
 W. W. MAINTYN, Manager,
 W. TREVENA,
 W. H. PASCOE, } Agents.

The Devonshire Great Consolidated Copper Mining Company,
 Tavistock, 26th January, 1871.

During the past twelve months Messrs. Oxland and Hocking's patent revolving caliner has been in full operation at the arsenic works of these mines, and the result has exceeded our utmost expectations. The process is easy, regular, and economical, effecting a clear saving of at least 50 per cent. on the usual mode of reduction by means of ordinary furnaces.
 (Signed) JAMES RICHARDS, Superintendent.

Wheal Jane Mine, 2nd December, 1870.
 Messrs. Oxland and Hocking's patent caliner is in full work, and is a complete success.
 (Signed) WILLIAM GILES, Jun., Agent.

Pendarves United Mines, Camborne, 14th February, 1871.
 I have great pleasure in saying that your patent caliner continues to give entire satisfaction, and is capable of doing any amount of work if properly served. In the absence of the clerk, whose book will show the exact quantity of coal, I can only say we are consuming considerably less than half what we did with theovens.
 (Signed) REGINALD T. GAYLES, Purser and Manager.

Terms for erection, and every information, may be obtained on application to the Patentees—Dr. OXLAND, Compton Gifford, Plymouth; or to Mr. JOHN HOCKING, Jun., Trewirgill-terrace, Redruth.

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 BY JOHN ROBERT PIKE.

Author of "Facts and Figures," and other works on the Mines of Cornwall and Devon.

CONTENTS.
 CHAPTER I.—Mining for Metallic Minerals, considered as a National Industry and as a Field for Investment.
 CHAPTER II.—British Mining—Does it Pay?
 CHAPTER III.—Geological and Mineralogical Characteristics.
 CHAPTER IV.—The Mines of Cornwall and Devon.
 CHAPTER V.—The Mines of England and Wales (Cornwall and Devon excepted), Scotland, Ireland, and the Isle of Man.
 CHAPTER VI.—System of Raising, Dressing, and Selling Ores.
 CHAPTER VII.—The Stannaries Court and the Cost-Book System of Management.
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WATSON BROTHERS,
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SATURDAY.—Market active for Tankerville, South Condurrow, West Franches, Uny, Roman Graves, West Chiverton, and East Lovell at advanced prices. Tankerville, 14 to 14½; South Condurrow, 6 to 6½; West Franches, 4½ to 5; Uny, 6 to 6½; Roman Graves, 1½ to 1½; West Chiverton 3½ to 3½; East Lovell, 1 per share; East Lovell, 26½ to 27½; Great Vor, 9½ to 10; Hingston Down, 1½ to 2½; North Crofty, 2½ to 2½; Grenville, 4 to 4½; Eberhardt, 27 to 28.

MONDAY.—The market continues active, with a good demand for West Chiverton, South Franches, South Crofty, South Condurrow, West Franches, Van, Great Vor, and Hingston Down; Roman Graves, Tankerville, and Great Laxey weaker. West Chiverton, 33 to 34, ex div.; South Franches, 3½ to 3½; South Crofty, 14 to 15; South Condurrow, 6½ to 6½; West Franches, 48 to 50; Van, 56 to 58; Great Vor, 10½ to 10½; Hingston Down, 2 to 2½; Roman Graves, 1½ to 1½; Tankerville, 13½ to 14½; Great Laxey, 16 to 16½; East Grenville, 11 to 11½; Cook's Kitchen, 23 to 25; Marke Valley, 7 to 7½; Eberhardt, 27 to 29; Don Pedro, 2½ to 2½.

TUESDAY.—The market is again active to-day. Great Vor, Roman Graves, West Chiverton, East Grenville, Cook's Kitchen, Carn Brea, East Lovell, Hingston Down, Eberhardt, and Van in demand. Great Vor, 10 to 10½; Roman Graves, 1½ to 1½; West Chiverton, 32 to 34, ex div.; East Grenville, 3½ to 3½; Cook's Kitchen, 24 to 25; Carn Brea, 54 to 56; East Lovell, 26½ to 27; Hingston Down, 2 to 2½; Eberhardt, 31 to 33; Van, 55 to 57; Great Laxey, 16½ to 17; Marke Valley, 7½ to 7½; South Franches, 13½ to 14; Tankerville, 13½ to 14; Eberhardt, 27 to 29; Don Pedro, 2½ to 2½.

WEDNESDAY.—The chief feature this morning was the fall in Great Vor from 10 to 8½ sellers, and up again to 9½, 10; West Franches and South Condurrow weaker. East Lovell, Carn Brea, South Franches, Great Laxey, and Roman Graves in active demand. Great Vor, 9½ to 10; Carn Brea, 54 to 56; South Franches, 48 to 50; East Lovell, 27 to 28; Carn Brea, 54 to 56; Great Laxey, 16½ to 17; Marke Valley, 7½ to 7½; South Franches, 13½ to 14; Tankerville, 13½ to 14; Eberhardt, 27 to 29; Don Pedro, 2½ to 2½.

THURSDAY.—Market active. Roman Graves, South Franches, East Lovell, Carn Brea, Eberhardt and Aurora, and Hingston Down in demand. Roman Kitchen, Great Vor, West Chiverton, and South Condurrow flatter. Carn Brea, 54 to 56; Eberhardt, 32 to 34; Hingston Down, 2 to 2½; Cook's Kitchen, 23 to 25; Great Vor, 9 to 9½; South Franches, 32 to 34, ex div.; South Condurrow, 6 to 6½; Prince of Wales, 2½ to 2½; East Caradon, 5 to 5½; West Franches, 48 to 48; East Grenville, 3½ to 3½; Sweetland Creek, 4 to 4½; Don Pedro, 2½ to 2½.

Meetings of Public Companies.

THE GOVERNOR AND COMPANY OF COPPER MINERS IN ENGLAND.

The annual general meeting of shareholders was held at the Terminus Hotel, Cannon-street, on Tuesday, Sir R. MACDONALD STEPHENSON (the Governor) in the chair. Mr. C. FRETHER (the secretary) read the notice convening the meeting. The report of the Court of Assistants (an abstract of which appeared in last week's Journal) was taken as read.

The GOVERNOR said that 12,000*l.* loss upon the year's working certainly would appear to present an inauspicious augury for the future, but it was satisfactory to be able to state that his able and indefatigable colleagues, as well as their newly-appointed manager, Mr. Martin, whom he had the pleasure of introducing to the proprietors upon the present occasion, were not in any degree daunted or discouraged in view of the amount of arduous duties they had undertaken. They found a rational explanation for the loss, which in no way involved or implied its necessary recurrence—the increased cost of the coal, consequent upon a rise of wages in March, 1870, of 10 per cent., from which they were now feeling the effects; the new works for securing better and cheaper coal hereafter; the payment of salaries to the company's servants whose services had been dispensed with; the check to the improvement in the iron trade consequent upon the state of the Continent; and, most of all, the unequal conditions of their competition, amply sufficed to explain and account for a loss having been sustained during the past year's working. The measures adopted by the Court were clearly and concisely epitomised in the report, and the difficulties the Court had to encounter would be very readily understood and appreciated by reference to the parallel contained in the report between the course contemplated by the parties who were going to purchase the works and that pursued by the Court. The former involved an expenditure of over 100,000*l.*, while the Court hoped to gradually effect the same object with a moderate expenditure, having no funds with which to accomplish it at once. The Court, if consulting their own inclinations, would lay before the proprietors the particulars already obtained since the Court undertook the duties imposed upon them by the resolution passed in August; but, under all circumstances, inasmuch as this information at the present state of the proceedings must of necessity be partial and imperfect, and subject to alteration and correction, and material modification by the investigations still in progress, it was deemed inadvisable to submit any such detailed statement as this course would involve. The Court prefer, as being more in accordance with the general interests, to advise the proprietors to accept the Court's assurance that at the present moment the discussion of these details would not only not promote the object they had in view, but would undoubtedly impede and hamper that freedom of action which was most essential, and more especially under existing circumstances. In effecting the fundamental changes and thorough re-organisation of every department of an undertaking of the vast dimensions and varied character of the Cwm Avon Works, the amount of time, labour, and attention which had to be bestowed upon the work in hand could scarcely be adequately estimated by any except those who had undertaken and been engaged on a similar service. The Court felt that they might, therefore, reasonably claim the indulgence of the proprietors, in the certainty of its being cheerfully accorded in support of the strenuous exertions the Court were making to restore prosperity to the company. With those few remarks he would move that the report and accounts be received and adopted.

Mr. JOHN HARMAN (deputy-governor) seconded the proposition. Major STEWART said there was an understanding at the last meeting that the accounts should be given more fully, to enable proprietors to form some idea as to the outgoing and incoming. As that had not been done, he should move an amendment that the report be not received, but be returned to the Court of Assistants, that the accounts might be inserted in detail and forwarded to all shareholders on or before April 30. He had no doubt the accounts were perfectly correct, but he wanted to see something more than a piece of blank paper.

The Rev. C. STEWART seconded the amendment. Mr. A. BEATTIE (one of the auditors) would be very glad if Major Stewart could suggest any abstract that would give more information to the proprietors than contained in the form now submitted; but, as he had again and again said, the detailed accounts at the offices of the company were open to the inspection of shareholders.

The GOVERNOR, speaking with Major Stewart that the accounts were susceptible of very great improvement and of material enlargement. The object of the Court was to make the accounts as clear as possible; but at present they were in a state of transition at the works, and the Court thought they would be only misleading proprietors by giving an account until the whole system had been re-organised. In future the accounts would be submitted in such a form that there would be no ground for complaint from any shareholder.

Mr. BEATTIE said the remarks of the Governor quite disarmed the object of the amendment; and he thought they would have the benefit of the Chairman's promise at the next meeting.

Mr. BEATTIE never thought the accounts should be less full than in the form now submitted; but in a trading concern like theirs, where they had competition, it became a question whether it was judicious to print the accounts fully, and send them forth into the world.

Major STEWART said, after the explanations from the Governor, he would withdraw his amendment.

Mr. WHITMAN asked when the proprietors might expect to receive these additional accounts?

The GOVERNOR said the company was at present in an inchoate state. The administration of its affairs was entrusted to a Court of Assistants, who, if they had not promised much, had laid down a course with the object of bringing prosperity to the company. He could not have conceived that it would have involved such an amount of labour; and taking all circumstances into consideration, he did not promise the amended account for till next year.

Mr. BEATTIE was disposed to place full confidence in the Governor and the Court of Assistants; but seeing that the iron trade had yielded a profit throughout the kingdom, and that the tin-plate trade had also yielded profits, he confessed his disappointment at the result of the year's operations, and had it not been for the Governor's statement that the affairs were in a transition state he should have supported Major Stewart's amendment. Seeing that a new manager had been appointed, he thought it was fair that the Court should have a full and fair trial before expressing an opinion either upon the report or accounts.

Mr. HOLDEN (who represented the estate of the late Mr. Gill) was particularly anxious to have information as to the improvement or otherwise of the company. It did appear strange to him that a little more detail was not entered into in the reports, and he did not see why there should be any difficulty in getting some idea as to the facts.

Mr. WHITMAN proposed that the meeting should be adjourned, because the proprietors could not obtain any assurance as to when they would be enlightened as to the condition of the company.—Mr. CURLEW seconded the proposition.

Mr. BEATTIE thought there was something to be considered in regard to the proposed outlay in connection with the new machinery. He would like the Court to be able to say in what way they proposed to carry out these alterations and improvements, seeing there was no available capital for the purpose. They had now a practical able manager for the manufacture of iron, who would no doubt soon be equally acquainted with the other departments; and what he (Mr. Beattie) wished to ask was whether the proposed alterations were positively necessary?

The GOVERNOR thought the point regarding the capital had been clearly enough explained. Certainly no further calls could be made; therefore, the financial means he had, as stated in the report, be furnished part by the sale of such surplus stock as it is not necessary for the company as manufacturers to keep in hand, and partly by contracting the operations of those departments which are least profitable. Those were matters the Court thought in which they must exercise discretion. The state of the machinery, engines, and the works generally were unequal to contend with the competition of modern works; and as they had no money to effect the necessary improvements, the Court had an impression that by a judicious application of a small amount of capital in the adaptation of the present machinery they might probably meet the competition against which they had to contend.

The amendment upon being put was lost, and the report and accounts were received and adopted.

Major STEWART proposed that in future, when the preference shares shall receive a dividend of less than 5 per cent., the remuneration to the Court of Assistants be reduced to 800*l.*—The Rev. Mr. STEWART seconded the proposition, which upon being put was lost.

Major STEWART then proposed that the secretary's salary be reduced from 500*l.* to 300*l.* per annum, which was seconded by the Rev. Mr. STEWART.

Mr. BEATTIE appealed to the mover to withdraw this motion. His own feeling was that they should bestow full confidence in the Court of Assistants in for at least another twelve months.—Mr. HOLDEN did not think that the resolution was lost.

The GOVERNOR proposed the re-election of Mr. Harman as Deputy-Governor, which was seconded by Mr. TURNBULL.

The Rev. Mr. STEWART proposed that Major Stewart be elected a member of the Court of Assistants, which was seconded by Mr. MILL.

Major Stewart's election was negatived. Mr. Harman was re-elected Deputy-Governor.—Mr. Seemman was re-elected a member of the Court of Assistants.

The GOVERNOR said that in view of their commercial connections they had found a gentleman largely associated with the foreign markets, and thoroughly conversant with the metal trade. He, therefore, asked the meeting to elect Mr. John Brown a member of the Court of Assistants.

The proposition was put and carried. Upon the proposition of Mr. BEATTIE, seconded by Mr. ROBERTSON, the auditors were re-elected.

Mr. GILBERTSON said he did not believe the Court could have made a better selection than Mr. Martin as their manager, having been a pupil of Mr. Monheims, one of the first ironmasters in Great Britain; but if he was interfered with

by gentlemen who only visited the works occasionally he would become what he is not now—a useless man.

A vote of thanks to the Governor and Court of Assistants concluded the proceedings.

THE GOLD MINING COMPANY OF YUBA.

An extraordinary general meeting of shareholders was held at the offices, Finch-lane, on March 31, Mr. H. E. ORMEROD in the chair.

Mr. STEVENS (secretary) read the notice convening the meeting. The CHAIRMAN explained that the present meeting had been convened for the purpose of taking into consideration the position and prospects of the company. It would be remembered that a special meeting was held some time since for the purpose of obtaining the assistance of shareholders in the shape of further capital, some further points having strengthened the belief that the enterprise would be an almost unexampled success. The directors, like the shareholders, were dependent for their information upon statements made by those who had visited the mine; the shareholders were already fully aware of the circumstances under which they became possessed of this particular property, known as the Stanley Mine, after it had been subjected to a most careful and thorough examination, and tested in every possible way. The present position, however, was this:—that unless shareholders came forward as a body and assisted the directors, it would be impossible to reap the full advantages of the purchase they had made. The object of the directors had been to ascertain how small a sum the property could be utilised, and they now came forward and asked the shareholders whether they would furnish it; the directors and their friends had already very largely invested their own capital, and (as had been stated in the circular) were prepared to subscribe amongst themselves one-third of the further capital required. The total amount of capital asked for at once was 500*l.*, although the directors thought it judicious to obtain power to raise 1,000*l.* The directors had done everything they could from the first to promote the success of the mine, thoroughly believing it to be a bona fide enterprise. They had never adopted any means to make the company a public one, believing that amongst themselves and their friends the whole of the capital would be subscribed. Rather more than 700*l.* had been provided, and it was proposed that the additional capital now to be raised should be in the shape of preference shares, the only question being what privileges should attach to such shares. Mr. Mattingley had drawn up a statement to show what capital would actually be required, which was as follows:—

“In connection with the present mill, to make the same available for all uses, and to work the ores of the Stanley Mine to the best advantage and with greatest profit, the following additional works would be required, and may be erected at about the cost here estimated:—	
Six pans (in plant), \$3,400; three settlers, \$1,500; concentrator, \$100.....	\$7,300
Shutting, belting, and taps for water wheels, ironed steel, &c.....	1,100
Quicksilver, chemicals, oil, candles, powder, and fuse.....	500
Incidental expenses, labour, &c. (say, 20 per cent.).....	1,800
Total.....	\$10,700

For Stetefeldt furnace £2250 or \$11,250
1500 or 7,500

The above for working 10 tons per day, but furnace capacity for more than double that quantity, from which a profit of certainly not less than 15,000*l.* per annum will be realised. The above works can be got into operation all complete by Sept. 1, excepting the furnace, which may take a month longer to complete, &c. Should it be determined not to erect furnace at present, then to place four pans and other required works in operation, \$7600, or 15,000*l.*, may be sufficient capital for the purpose, and would work from 7 to 9 tons per day of gold ore or value of a share of 10*l.* per annum. From \$3000 to \$5000, if no more can be raised, would start the mill on Leonora rock without pans and work 8 to 10 tons per day, which would give a net profit of certainly not less than \$100 per day, and it might go as high as \$500 per day from that mine, or \$30,000 per annum. The company may have all the rock the mill can work from this mine for 12 months, or until the works are in condition for working the Stanley ore, at no cost for the ore to the company, excepting the mining, and keeping the mill in good order, and the mill, provided the earnings of the mill from this mine shall be applied to the development of the Stanley mine, and completion and erection of the necessary works of the Yuba Company.—S. MATTINGLEY.

The CHAIRMAN said the directors considered it of the greatest importance that a Stetefeldt furnace should be erected, as without it the full advantage of the mine would not be gained. Dr. Bishop, Mr. Mattingley, and Mr. Webb had most carefully considered the question, and unanimously recommended that 5000*l.* should be subscribed for the purpose.

Mr. MATTINGLEY stated, in reply to a question from a shareholder, that he had such confidence in the result of working the Stanley Mine that he was quite willing to devote his time and services to superintend the operations in Idaho, and, except more personal expenses, not to ask for remuneration until the mine is in a paying condition, and then to leave it with the shareholders to say what it should be. As to the mill and machinery, he knew the company had got it very cheap, that all the offices were well and substantially built, and the mill-house itself was a good, firm building. What they wanted was amalgamating pans and settlers to make it suitable for working silver ore. If the capital asked for be raised without delay, he would send over dividends before the expiration of this year.

Dr. BISHOP said he had the greatest confidence in the successful working of the mine if the necessary capital is forthcoming. Without working capital, however good the mine might be, it is of no value. He had himself much to state in the company that he had decided to offer his services to go out again to see the works fairly in operation, and otherwise attend to the company's interests, if the directors thought it advisable; and, like Mr. Mattingley, he would not ask for remuneration until the mine could pay dividends to the shareholders. He knew that the greatest care had been taken by Capt. Nancarrow and Mr. J. H. Slater, the professional men employed to examine this property, and being on the spot at the time the examinations were made, he had the greatest confidence in their reports.

A long discussion ensued, which resulted in the passing of the resolution authorising the directors to increase the nominal capital of the company by the creation and issue of 2000 preference shares of 5*l.* each, entitled to the following special privileges:—The divisible net profits realised by the company in each year for a period of five years from April 1, 1871, shall be applied in the first instance to the payment of a dividend not exceeding 10 per cent. per annum on such preference shares, and the sum of 5000*l.* shall be sufficient to put the company in a position to work at a profit. However, only 1500 out of the 2500 shares were applied for, and even those have not all been paid up. Dr. Seemman and Capt. Sohns have, notwithstanding, been able to send remittances, which have left sufficient profit to work the mine up to the present time; and at an extraordinary general meeting, held on Feb. 14, the shareholders expressed their approval of their management, and passed a resolution declaring it to be most desirable that a sum of 5000*l.* should be at once raised, it appearing that this sum would be amply sufficient to carry the company through the dry season, and to put up additional stamps on the property. The directors regret to observe, however, that the invitation to subscribe has as yet been responded to by a few shareholders only, who have expressed their willingness to take up about 700*l.* in all. The directors trust that after the shareholders have carefully read the general report of Dr. Seemman and Capt. Sohns, issued to them, they will at once subscribe the remaining sum wanted, now that the valuable property of the company offers a sound prospect of success.

The CHAIRMAN, in moving the adoption of the directors' report and balance-sheet, said that since their last meeting their financial position had improved by two more remittances than had been anticipated during this grinding season coming to hand, and by their mine having worked at a profit during the last few months. Nevertheless, it was absolutely necessary that every shareholder should come forward without delay to subscribe his quota towards the 5000*l.* required to put the company straight. He himself, and he might add all his colleagues of the board, had been used and abused by the mine, and the thought mistakes, and no doubt, been made in the appointment of incompetent persons, and though these mistakes had seriously affected the property of the undertaking, yet they had now the satisfaction of knowing that they were working at a profit instead of, as hitherto, at a loss, and that their present position was, perhaps, as comfortable as one could be expected from all that had happened. No doubt a large price had been paid for their property, but he ventured to say a most reasonable one, when it was borne in mind that they got 1,750,000 tons of ore for their money, every ton of which had on an average been proved to contain, not by mere assay, but by actual working, 5*oz.* of gold and some silver. It was true the sum of 27,886*l.* had been spent on opening up the mine, in erecting machinery, and in working expenses, but the produce of the mine at this moment in the company's possession amounted to very nearly one-half that sum. How many mines were there which could show, as the Javali did, a steady return of 190 per cent. on every ton of ore which passed through their mills? However, he knew that the shareholders previous to their meeting had heard the statements of their managing director, Dr. Seemman, who had just returned from Nicaragua.

Dr. SEEMMAN said that when he had the honour of addressing the shareholders the last time he could only bid them to believe in the mine. He was now in a stronger position. The mine had been proved by actual working to be what he always had maintained it was—a good one—and belief might now fairly be discarded for actual knowledge. When, in July last, he undertook the work of re-organising the mine, a task in which he was ably seconded by Capt. Sohns, he

was ignorant of the magnitude of the mischief done, or else he might have shrunk from so heavy a responsibility. The dilemma in which he found himself in Nicaragua was that the mill was so much injured that after his return nearly a whole month was taken up to put it to rights, and then only 10 stamps could be set to work; the remainder did not start until Nov. 25 last. Then, no ore had been accumulated during the last dry season, and the chief channels of supply had fallen in. The mill could, therefore, be fed only with such ore as could be obtained readily, and he and Capt. Sohns seriously considered whether, under these circumstances, they should allow the mill to remain idle until they should be in a position to feed it with the best ore of the mine, and thus prove unmistakably the goodness of the property to the most prejudiced, or whether they should feed the mill with whatever ore, at all, or tailings they could lay hold of. Though the latter course might furnish arguments to those who were inclined to undervalue the property, by enabling them to point out the low yield, they nevertheless adopted it, and the very first month they crushed they paid not only all working expenses, and some debts, but made (with only ten stamps) 90*l.* profit. In December they fed the mill almost entirely with ore formerly rejected as too poor—ore naturally much mixed with earth (of which there are many thousands tons on the surface of the mine), but a great part of which they were able to carry to the stamps for 2*½d.* a ton; yet even this makeshift yielded a profit of 327*l.* during the month. Since then, they had continued to re-open a cross-cut into the upper portion of the mine, and had now begun to quarry away the very top of the mine (500 ft. above the river bed, the eastern boundary of the property), where the lode was from 18 feet to 20 feet wide, and allowing them to obtain a ton of good ore at the low rate of 1*s.* Being anxious to return to Javali at the beginning of the wet season, he (Dr. Seemman) should like to see all direct matters in London put straight before his departure. Their position was this:—In Nicaragua they did not for the first time have more money—that was to say, the sale of gold would not only cover expenses, but leave a profit. But he wanted to order for the mine a few stores, tools, and machinery, to the amount of 500*l.*, take out at least 1500*l.* to be provided with cash during the wet season, pay off debenture interest, which amounted now to 861*l.* 10*s.*, and discharge maturing bills and other liabilities in London, amounting to 2481*l.* 6*s.*; altogether, 5342*l.* 10*s.* To meet this they had cash in hand, 992*l.* 10*s.*; gold expected from Javali in April, 687*l.* 10*s.*; and gold on shares in arrears, 376*l.*; altogether, 2057*l.*, so that all wanted to put the company straight would be the ridiculously small sum of 3285*l.* 10*s.*, only part of which had as yet been subscribed. If shareholders at once came forward he hoped to be able by the end of the present year to pay off the debenture debt, and the company would then be in a fair way towards a dividend. But there must not be any hesitation, no loss of time, if the next wet season was not to be vitiated; and he must not be held to his promise unless the shareholders were ready to do their duty. (Hear, hear.) If they gave him the means he would show them that all he had ever said or written about the Javali was substantially correct, and he had now begun to furnish the proofs of it. (Applauding.)

Mr. T. BAXTER said that nobody could have read Dr. Seemman and Capt. Sohns' general report without feeling that the company had passed safely through a great crisis, and was now in a fair way to prosperity. There were no more great matters to be decided, but the statements were all based on facts, and carried conviction to every shareholder's mind. (Hear, hear.)

Mr. C. DINGWALL said that shareholders, after hearing Dr. Seemman's explanations, must be blind to their own interests if they did not come forward to help at a time when their help would be so beneficial. He had already taken up more than his proportion of preference capital, and he was ready to take more; but it should not be left to a few shareholders to find all the money for the rest. Mr. A. A. Pollock and others had offered to present a certain number of ordinary shares to all those who subscribed towards the 5000*l.* required; he himself should feel ashamed to accept this generous offer, and he trusted a similar feeling would animate every other shareholder. Mr. A. A. Pollock had done so much for the company, and it was with regret that he observed his absence. Mr. Pollock was an honest, upright man, who thoroughly believed all he said or wrote, and the time seemed now to be approaching when the prospects he held out were about to be realised. (Cheers.)

Mr. J. W. GAWW proposed,—"That the subscription of each shareholder would amount to about 3*s.* per share, and he was quite ready to subscribe his share."

Mr. HENRY SEWELL said that a profit of 150*l.* per month (more than which had now been made) would be sufficient to pay the interest on all the preference shares and debentures.

Mr. L. G. HEATH said that he agreed with Mr. Dingwall in thinking that if every shareholder could have had the advantage of hearing Dr. Seemman explain the present position and requirements of the company, the money needed would be more abundantly forthcoming. There were 190 shareholders in the company, but only 25 of them attended this meeting; yet it would not be a bad test if a subscription list were at once set on foot. (Marks of approbation.)

The secretary having drawn up the headings of such a list, 100*l.* of the 5000*l.* required were subscribed.

The report of the directors and the balance-sheet, duly seconded by Mr. C. M. I. Pollock, having been carried unanimously,

Mr. E. HANCOCK proposed,—"That the directors should be re-elected for the year ending on this occasion, and the latter offering himself for re-election he had pleasure in proposing that gentleman.—The resolution, seconded by Mr. Sewell, was carried unanimously.—The CHAIRMAN then proposed the election of Mr. Woodhouse as auditor in place of Mr. Frewer, who, he regretted to say, retired from an office he had filled so ably.—This resolution, seconded by Mr. Harding, was carried unanimously.

Mr. J. W. GAWW proposed,—"That the thanks of this meeting be given to Dr. Berthold Seemman and Capt. Sohns for having, by their untiring exertions and economical management, brought the Javali into a paying condition." It was not a year ago that shareholders were told their property had better be abandoned. To-day they had the satisfaction of knowing that, notwithstanding the damage done to both mine and mill previous to Captain Sohns and Dr. Seemman's return to Javali, they succeeded, by their well-directed energy, in overcoming every obstacle placed in their way, in not only making the mine self-supporting, but also working at such a profit that at the end of the year they would, doubtless, be able to show a balance on the right side of the books. By reducing the expenditure still further, and by increasing the yield, there was now a profit of 190 per cent. on every ton of ore which passed through the mill. Such a statement as this, borne out by a reference to the books, open to inspection, was in itself the best argument for submitting this resolution.

The resolution, being duly seconded, was carried unanimously.

Mr. E. HANCOCK proposed,—"That the directors should be re-elected for the future development of the mine recommended in Dr. Seemman's and Capt. Sohns' last general report." A glance at the results they had already obtained with their present machinery fully justified them in thinking seriously of increasing their reduction works, and thereby utilising the enormous property they had in Nicaragua. They knew that all their general management expenses would be the same whether they had 20 stamps going or 40, and they further knew that 20 stamps would pay their working expenses, and that every additional stamp they could set going was so much profit. For this purpose they were not asked to put their hands at once or deeply into their pockets; on the contrary, the proposed additions would be made so that they would hardly feel the outlay. They could, therefore, not do better than give their cordial approval of the proposed additions. The resolution, duly seconded, was carried unanimously.

A vote of thanks to the Chairman, proposed by Dr. SEEMMAN and seconded by Mr. BOMPAS, concluded the proceedings.

LUSITANIAN MINING COMPANY.

The seventeenth annual general meeting of shareholders was held at the offices of the company, Queen-street-place, on Thursday, Mr. HENRY REEVE in the chair.

Mr. W. G. WILLIAMS (the secretary) read the notice convening the meeting, and the report, of which the subjoined is an abstract, was then submitted:—

The accounts showed that the returns of ore from the Palhal Mine for the 12 months ended Sept. 31 last amounted to 1132 tons, which realised a sum of 11,352*l.* 16*s.* 9*d.*, and the costs having been 19,271*l.* 6*s.* 5*d.*, the profit has been 4281*l.* 10*s.* 4*d.*. From a comparison of the above figures with those of the previous year it is shown that although a considerable diminution has taken place in the yield from the mine, there has also been an important reduction in the expenditure. The further depression in the copper market has again been severely felt in this undertaking, for the profit from the Palhal Mine would have been 660*l.* in the present accounts if the same prices had been realised as in the preceding year, whereas the average price at which they were sold has shown a further decrease of 4*s.* per ton. An important advance has now fortunately taken place in the copper market, and it may be expected that better rates will be obtained for the ores of the current year. On the other hand, the directors regret to report that the depression in the price of silver has again been severely felt, and the diminution in the returns for the present year may be calculated on; but it is believed that the ore will be of higher value. In connection with this the directors are glad to draw your attention to the fact that the quantity of nickel seems to increase. For the first four months of the current year rather more than 14 tons of this mineral has been obtained, whereas the total quantity from the time it was discovered, in June, 1867, to Sept. 30 last, was only a little over 10 tons. A rising price for nickel, and the fact that the Palhal Mine has fallen off, and the diminution in the returns for the present year may be calculated on; but it is believed that the ore will be of higher value. 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and the ores taken at a valuation to include in the accounts had since been sold, and realised nearly 2000, in excess of the estimate. From Pailhal the returns had fallen off, but during the whole of the period included in the accounts they had been favourable, and they might look forward next year to a better profit from Pailhal. Carvalho was also looking better, and the returns had been decidedly better, and they anticipated that in the current year they would have no longer to write a loss. There were five lodes at Carvalho, which it was intended to cross-cut, but this could only be slowly proceeded with, as they had not a large amount of capital at disposal. As to the small operation at Villa Meao Mine, it was not really carried on with the company's money. Mr. Pinto Basto had a claim upon the company, which they agreed to compromise for 5000, and Mr. Pinto Basto elected to have the 5000, expended on the Villa Meao Mine instead of receiving it in cash. They had never much expectation from the mine, as it was badly situated, and remote from roads, yet if it had turned out valuable the company would have derived an 8 per cent. They had now spent about half of the 5000, in exploratory works, and a flood had destroyed the workings, so that probably Mr. Pinto Basto would now consider it had been sufficiently tested. Since the opening of the railway to Oporto they had been able to remove their warehouse from Salreco to Oporto; they thus obtained the advantage of a larger number of ships, and so reduced their freight to 12s. per ton. With better prices for copper the company would assume a profitable position. Major Lyons could not share in the sanguine expectations of the Chairman. He suggested four years ago that the stopes should be worked out and the company wound-up. He thought that should be done now. He considered the statement of accounts was false, because it did not include the difference between the amount expended at Villa Meao and the 5000, due to Mr. Pinto Basto as a liability.

Dr. FRANCES had been disappointed in previous years, but certainly not during the past year. Indeed, during the year the prospects had so changed that he had great reason to be satisfied. Their lead had already given them some profit, and that seemed likely to be a great deal. Pailhal had always paid its way, and they had now two mines, both paying, yet it was proposed to wind-up. He did not agree with that proposition. He had seen the Burleigh rock-drill at work at Deptford, and it seemed to him admirably; if they could use that in making their cross-cuts he thought it might be an advantage.

Mr. RICHARD TAYLOR said the drill was no doubt excellent for hard ground, but the mine was soft, and the difficulty was not in breaking it down fast enough, but in removing it when broken.

Mr. TAYLOR would be quite willing to wind-up under different circumstances, but he felt that they would get nothing if they wound-up, and that they had a very good prospect if they went on. They had the finest water-power to be found anywhere, and in Carvalho they had a mine which produced a good lead and a blende, rich in silver, which sold at 4s. They had recently also found a nickel, which they had sold at 10s. He hardly thought that if they found a good bunch of nickel it would pay them better than half-a-dozen copper mines.

After some further conversation, Messrs. Henry Reeve and J. H. Schmidt were re-elected directors, and Mr. Fawcett was re-elected auditor, the proceedings terminating in the usual manner.

FORTUNA COMPANY.

The half-yearly general meeting of shareholders was held at the company's offices, Queen-street-place, on Thursday, Mr. J. R. PELL in the chair.

Mr. SWAFFIELD read the notice convening the meeting, and the CHAIRMAN having declared the meeting duly constituted, the report of the directors was submitted:—

The mining operations have yielded a very satisfactory amount of profit during the past half-year, and comparing the result with the six months to June 30 last, the increase in the profit now shown amounts to 122, 2s. This result has been obtained without putting any undue strain on the resources of the mines, as, although the extraction of ore has averaged as much as 411 tons per month, the reserves of ore have not diminished; indeed, there is a small increase of 75 tons. The mines themselves still present many encouraging features, and are in excellent working order in regard to machinery and all mechanical appliances. Canada Inessa, the least productive of the company's mines, but even at this time the profit now shown amounts to 122, 2s. The prospect of making good discoveries during the present half-year. The Salidos Mine has continued very productive, and the prospects for the future are highly encouraging. A valuable adjunct to this mine is the Graciosa pertinencia, upon which operations have for some time been carried on. At the 25th fathom level, which is the deepest point yet reached, the lode is very productive; and in the level going towards the Quintenos Mine, the lode has of late yielded 3 tons of lead ore per day. Mr. Tankin has been successful in obtaining improved results from the smelting operations, and he hopes still further to increase the produce from the ore, and at the same time to lessen the cost of smelting. In the transport department nothing has arisen calling for special comment; the lead has been conveyed to the ports with regularity, and at former rates of carriage. From the ports of Seville and Cadiz good shipments of lead have been made, but it has been very difficult to get lead from Malaga, the trade at that port having been greatly affected by the late war. Now that peace has been restored, this difficulty may be expected to cease. Pig-lead has commanded a ready sale during the past half-year, but the price has been almost stationary, at 177, 10s. per ton. During the past week, however, a brisk demand has sprung up for Spanish lead, and the directors have been enabled to effect sales at 181, per ton. On March 19 the directors paid off the last instalment of the debentures, amounting to 37500, and having been able to pay aside a sum of 15000, out of the profit of the December half-year. The balance sheet of the company, there will remain the sum of 617, 8s. 8d. to be charged against the profit and loss for the new half-year, in order to complete the redemption (out of profits) of the entire sum of 15,000, originally borrowed. The balance now standing to the credit of the profit and loss account amounts to 3322, 0s. 6d. Out of this sum the directors have declared a dividend of 2s. 6d. per share, which will absorb 31250, leaving to be carried forward 197, 0s. 6d. This dividend is 6d. per share more than the dividend for the previous half-year, and should lead continue at its present price there is reason to hope that the next half-yearly dividend will be still larger.

The CHAIRMAN had but little to add to what was stated in the report. The affair was in quite as satisfactory a position as it had hitherto been; in fact, more so, as the price of lead was higher, and he had to congratulate them on their having paid off their debentures. There was a small amount due to their profit and loss account, so that the item would appear once more, but that was merely a matter of account. They owed the public nothing. Mr. TAYLOR suggested that the 15,000, which they had paid off out of revenue should be deducted from their plant account, so that it need no longer appear in the accounts. As to the mine itself, it was very satisfactory. Canada Inessa was not so good as it had been, but there was still much in it. Salidos was excellent, and the new little mine of Graciosa pronounced to be very good. They had laid out much for machinery, and would have no great outlay to make for a considerable time to come.

Messrs. C. Morris, J. P. Judd, and J. Taylor were re-elected directors. The election of Mr. H. D. Abercrombie was confirmed, and Messrs. Dorrington and Roberts were appointed auditors.

The usual complimentary votes terminated the proceedings.

LINARES LEAD MINING COMPANY.

The half-yearly general meeting of shareholders was held at the company's offices, Queen-street-place, on Thursday, Mr. R. HENTY in the chair.

Mr. SWAFFIELD read the notice convening the meeting. The accounts to Dec. 31 show that the total expenditure during the half-year has amounted to 19,555, 4s. 2d., being a diminution of 215, 5s. 7d., as compared with the six months to June 30. The sales of lead were scarcely so large as during the half-year just referred to; the difference, however, is more than represented by the increased stock of lead and ore at the end of the financial year, the value of such stock being 25,093, 14s. 2d., as against 18,667, 6s. 6d. at the end of June last. The profit on the half-year has amounted to 4898, 10s. 3d., being 956, 10s. 3d. more than the profit for the six months to June 30. The profit is at the rate of upwards of 21 per cent. per annum on the company's paid up capital of 45,000. To the credit of the profit and loss account there stands a balance of 8488, 17s. 9d. Out of this sum the directors have declared the usual dividend of 6s. per share, which will absorb 37500, 10s., and they have set aside towards defraying the cost of a new engine now being constructed for the Quintenos Mine the sum of 7500—4898, 10s., there will then remain as profit in hand the sum of 2990, 7s. 9d. The old mines have yielded a good quantity of lead ore during the half-year, the extraction having been at the rate of 293 tons per month; and it is satisfactory to find that this return has been kept up without trenching on the reserves of ore. It will not be possible, however, to maintain such a rate of extraction, and consequently the returns for the present year are being limited to 200 tons per month. At this rate, however, the directors expect that good profits will continue to be made. At the Quintenos Mine the extraction of ore has been at the rate of 20 tons per month; at this mine, however, the reserves of ore have increased by 200 tons, from 1200 to 1400 tons, and there is every probability that there will be a further increase during the present half-year. The directors have not thought it desirable to urge an increased extraction of ore from this mine whilst a sufficient produce has been obtainable from the other mines to leave a satisfactory profit. A considerable amount of work has been done at the Quintenos Mine during the past half-year, the whole of which has been charged to the revenue account. To defray the cost of the new engine required for the mine a special fund is being provided, and, as already stated, the sum of 7500, has been put aside towards defraying the cost of such engine. The smelting of the ore continued to be carried on at the company's works at Cordova with good results as to cost and produce. There is an increase of 1s. 2d. per ton in the cost of smelting as compared with the previous six months, but this arose from the necessity of having recourse to English coal during a large portion of the half-year. There is every prospect of the company's receiving an adequate supply of Spanish coal during the present half-year. No reduction in the rate of transport has been effected since the last general meeting. The produce has, however, been conveyed from the mines to the ports with great regularity. The bulk of the company's lead has been shipped to London, where it has always found a ready market. Since September last the price of lead has continued at 177, 10s. per ton, with scarcely any fluctuation. During the past few days, however, the directors have effected a sale at the advanced price of 181, per ton, and the market wears a healthy appearance at the present moment.

The CHAIRMAN claimed indulgence if he was unable to give as much information as Mr. Cox would have given them, but he was only called to take the chair upon their learning by telegraph that both Mr. Cox and Mr. Judd were detained on the railway by an accident. The old mine continued to yield well, but it was gradually giving less and less, though by no means exhausted, but he thought they must look in the future more to Quintenos, which has been paid for out of profit. An engine was also required, and a large proportion of the money had to be set apart for it. The smelting works had progressed satisfactorily, the cost has been rather higher, but this was in consequence of their inability to obtain native coal. They had had better quality from England, it was true, but the difference of price was more than equal to the higher quality. He might also congratulate them upon the price of lead having improved, so that instead of getting 177, and a few shillings, as they were at the date of the

last meeting, their last sale was made at 181, and there was a very good demand. There was every prospect that the price would continue as at present, if it did not increase. He concluded by moving the reception and adoption of the report.—Mr. HENDERSON seconded the resolution, which was put to the meeting, and carried unanimously.

Mr. PEARSON enquired whether it would not be desirable and more economic to work out the old mines at once, and abandon the mine? Mr. TAYLOR said it would be if the ore were above the water; but while, as at present, they were compelled to keep certain works going, it was as well to take out what ore they could. The Quintenos Mine was of some value, and they hoped it would make a good mine before the old mine was exhausted. In the current half-year he thought the yield would not be quite so large, but there would be no serious falling off.

Mr. RICHARD TAYLOR explained that it was not only for taking away the ore that they continued the old mine. They had certain works which were opening good ground occasionally, and this helped to keep up the returns.

Messrs. W. Henderson and C. Morris were re-elected directors, and Mr. J. R. Pell was elected a director in place of Mr. Addis, retired. Messrs. Abercrombie and Bigge were appointed auditors for the ensuing year.

The proceedings terminated with the usual complimentary vote.

ALAMILLOS COMPANY.

The half-yearly general meeting of shareholders was held at the company's offices, Queen-street-place, on Thursday, Mr. R. HENTY in the chair.

Mr. H. SWAFFIELD (the secretary) read the notice convening the meeting, and the Chairman having declared the meeting duly constituted, the report of the directors was taken as read.

The accounts for the half-year ending Dec. 31 last show a profit of 4521, 4s. 1d., this exceeds by a few pounds the profit made during the six months to June 30 last, the profit for that period having been 4581, 3s. 3d. These figures show that the company is in a position to pay a dividend of 10s. per share, and a comparison of the quantity of ore raised during the two periods—for the six months to June 30, 1870, 1500 tons; and for the six months to Dec. 31, 1870, 1588 tons. In England the price of lead has continued very low since September last, 177, 10s. per ton having been the average price for that period. The directors have just concluded a sale at an important advance—181, per ton, and, judging from the diminished exports of lead from Spain, the price will probably go still higher. The mines continue to yield a steady and satisfactory return of ore, and promise well for the future. The reserves of ore are again estimated by the superintendent and mining agents at 2500 tons, and they have some hope of increasing this quantity during the present half-year. A large amount of exploratory work continues to be carried on, and some considerable expenditure has been incurred in cross-cutting to intersect parallel lodes known to exist in the sets. Great benefit may result from these explorations hereafter. The smelting of the ore has been continued at the works of the Linares Lead Mining Company, at Cordova; the result to this company has been highly satisfactory, the produce from the furnaces having been good, and the cost of working low. One of the advantages of these works is that the desilvered lead made is exported from Spain free of duty, and an important saving is thus effected, apart from the profit of desilvering. The profit standing to the credit of the profit and loss account, as shown by the audited accounts, is 5247, 5s. 6d.; out of this sum the directors have declared a dividend of 6s. 6d. per share, amounting to 37500, 10s., and have written off from the account, "outlay on mine works," 5000, —47500, leaving a balance to be carried on of 372, 5s. 6d.

The CHAIRMAN said that the profit had about the same, and he thought they had for the future more hopeful times to look forward to, because the price of lead is higher, and likely to continue so.

Mr. TAYLOR considered the position of the mine very satisfactory. The mine was very economically managed, though they did not claim any particular credit for it, for it arose because they were fortunate enough to have the shaft and machinery placed in a good position. Their future would depend much on the size of the veins, of which they had three. From the main centre the mine was gradually opening out, and he thought the chances were fair that they would continue to have a large mine for many years to come. The ore contained a better percentage of silver than that from the other mines, and as they sent it down to Cordova, and it was desilvered in their own works, they got the full advantage. The mine would yield a steady and satisfactory return of ore, and promise well for the future. There was a good demand for America, India, and the East, and he believed that the next time they sold lead they would get a better price than they did for the last.

Messrs. Cox and Abercrombie were elected directors, and the election of Mr. J. R. Pell was confirmed. The auditors for the ensuing year were also appointed. A vote of thanks to the Chairman terminated the proceedings.

EBERHARDT AND AURORA MINING COMPANY.

An extraordinary general meeting of shareholders was held at the Cannon-street Terminus, on Thursday, to confirm and sanction the issue of 3500 shares of 10s. each in the capital of the company, for the following purposes:—1000 shares already issued by the directors for the purpose of purchasing the Ward Beecher Mine, and 2500 shares for the general purposes of the company, on the terms of such last-mentioned 2500 shares being offered as nearly as may be rateably to the persons whose names were on the register of members of the company as shareholders on the evening of March 25, at the price of 5s. premium per share, and that any shares so offered and not taken up by the shareholders to whom the same shall be offered may be disposed of as the directors may think fit for the benefit of the company.

Mr. E. L. J. RIDSDALE, F.G.S., Assayer of H.M.'s Mint, in the chair.

Mr. ALFRED CRITCHETT (the secretary) read the notice convening the meeting.

The CHAIRMAN said that the present meeting had been called for the purpose of obtaining the sanction of the shareholders for the issue of a series of shares—that is, 1000 to the vendors of the Ward Beecher Mine, which was purchased in December last, and 2500 for the general purposes of the company. The rules of the Stock Exchange required that such issues should receive the sanction of the shareholders. He thought the better way would be for him to propose this resolution, and after it had been passed to submit such information to the shareholders as the board possessed in regard to the position and prospects of the company. He then moved the resolution in accordance with the terms embodied in the notice convening the meeting.—Mr. HAGGARD seconded the proposition, which was put, and carried unanimously.

The CHAIRMAN said it would be recollected that when the Board came before the shareholders last year they did not ask for any working capital to be subscribed, because a contract had been made to build the International mill, which was to crush 80 tons of ore per day. It was expected that this mill would have been ready by December, and it was calculated that out of the profits they would be able to provide working capital, and to divide the surplus among the shareholders. Difficulties, however, prevented the contract being carried out in time, and the universal severity of the winter had caused the wire-way to be unavoidably delayed; but he was glad to be able to state that a telegram had been received announcing the gratifying fact that both the International mill and the wire-way would be running on the 10th—that is, next Monday. In December last, after having the Ward Beecher Mine thoroughly surveyed by competent authorities, the board took upon itself the responsibility of effecting the purchase of that property for 10,000, the vendors having such confidence in its value, agreeing to take the payment in the company's paid-up shares. That mine had turned out something really wonderful—a small 10-stamp mill in three months having yielded a profit of nearly 14,000. So that in three months they had actually paid for the Ward Beecher Mine, and had nearly 5000, to the good. (Hear, hear.) In a letter just received from Mr. George Atwood they were informed that hitherto the workings at the Ward Beecher had been confined to the bottom of the mine; that the average of the ore had been 133s. of silver per ton; that the gross bullion produced had been \$35,000, and that the crushed ore was now coming out at the rate of \$110 per ton. It was quite as likely to be \$140 or \$150 dollars per ton next month, as the percentage in a great measure depended upon the way in which the ore was selected. Although magnificent profits would be realised by employing the 60-stamp mill upon \$40 ore, it was intended to keep the 10-stamp mill running upon Ward Beecher ore, that mill, known as the "Oasis," paying at the present time 30 per cent. upon the entire capital, which, with the new shares, now amounted to 230,000. (Hear, hear.) The Board had been just informed that this Oasis mill had run steadily for 26½ days during the month, and produced 22 bars of silver, assay value \$35,139, having worked 295 tons of ore of the average assay value of 137 per ton. Notwithstanding there had been very many serious drawbacks, in the way of severe snowstorms, the accounts still show the very handsome profit of \$22,579. According to a telegram received there seemed to be an inexhaustible supply of this ore in the Ward Beecher Mine; and they had been further informed by telegram that bullion was now being remitted to this country, seven bars of silver having been shipped, via New York, and that they would now go on remitting bar-silver as rapidly as possible. It was calculated that the wire-way would convey 300 tons of ore per day, but the board would be very glad if only one-half that quantity was sent down the wire-way, which, he might mention, had been erected in a most substantial way, so as to overcome the natural disadvantages in the configuration of the country; its expense had thus been greater than originally contemplated, but they were credibly

advised that it would rapidly pay for itself, inasmuch as the cost of hauling had been \$4 per ton in the winter; while by means of the wire-way the amount would be so materially reduced that it would pay a very good interest as an investment. (Hear, hear.) He stated last year that the fact that these were chloride ores was the only reason which induced him to have anything to do with the company; and he then pointed out the great difference between chloride ores and what was known as base metal, the expense of extracting the silver from the latter being very great, whereas the chloride ores were easily and most inexpensively treated. The amount of silver got out, as he had already stated, depended upon the judgment exercised in the selection of the ore. They got out 86 per cent. assay value, leaving about \$10 per ton in the "tailings." He mentioned last year that he thought the silver could be economically extracted from these "tailings," and he had since found by a series of experiments that \$6 out of the \$10 could be recovered at a very small expense—that, however, was one of the points for their future consideration, the first thing they had to do being to pay the best dividends they could from the International and Oasis mills. (Hear, hear.) When they were paying good dividends they could very easily turn their attention to the "tailings," from which he hoped and believed they would be able to pay good dividends too. (Hear, hear.) Mr. Atwood expressed his fullest confidence in the permanent character of the mines, the district throughout being so enormously rich for silver and silver ore. It might, and no doubt would, vary in richness, but there could be no doubt of their profits, when sufficient could be realised from such a mine as Ward Beecher to pay for its purchase in two months. (Hear, hear.) With the command of capital which this company possessed, he hoped there might be a good many Ward Beecher's in the district. (Hear, hear.)

A SHAREHOLDER asked where they obtained their quicksilver?

The CHAIRMAN said that it was obtained from mines in California. Mr. HAGGARD reminded the shareholders that the company was constituted and its present capital subscribed for the sole purpose of crushing at least 80 tons a day, calculating upon ore averaging \$10 a ton, subject to \$20 for expenses. Any statistics made out from the working of the company's small 10-stamp mill would be of no service as a guide to their profits. For example, the salaries of the general manager, the mill manager, and the mine manager, debited against the quantity of ore the 10-stamp mill could crush would count for \$6 11c. to the ton crushed, whereas if you transfer those charges to the large mill, crushing 100 tons a-day for 28 days in the month, they will only count for 63c., or not more than half a dollar to the ton, the difference being more than 25 per cent. of the \$20 a ton computed profit. Mr. Ridsdale has informed you that our calculations were based upon \$40 ore. The returns made to the assessor of the White Pine district, in the State of Nevada, for the quarter ending June 30 last gave \$41 as the average. The South Aurora and Hidden Treasure showed, however, an average of \$47 and \$48 respectively; and I may remind you that the extra \$7 would be extra profit, if our mines should average the same. Through the kindness of Mr. Ridsdale, I and my partners were shown the process of the 60-stamp mill, and I do not think we can get \$8 out of the tailings, and I find on making a calculation on this basis, and allowing \$1 a ton for expenses, that there would be a profit of 36,000, a year. When you contemplate the fact that every ton of tailings is in fine pulp, and has had expended upon it, under the process of mining, and milling, and hauling, from \$13 to \$15 per ton, and that then you add the value in the tailings, say \$9 per ton, we, perhaps, shall be able to get the ore out as good as ore originally as good as the ore from the tailings. He has told you he can get \$8 out of the tailings, and I find on making a calculation on this basis, and allowing \$1 a ton for expenses, that there would be a profit of 36,000, a year. When you contemplate the fact that every ton of tailings is in fine pulp, and has had expended upon it, under the process of mining, and milling, and hauling, from \$13 to \$15 per ton, and that then you add the value in the tailings, say \$9 per ton, we, perhaps, shall be able to get the ore out as good as ore originally as good as the ore from the tailings. I sit down I would wish to call attention to the services rendered by Mr. Philpotts, and I hope that we shall at our next meeting have good cause to convey to him our hearty thanks for his devotion to our interests. He has been very ill, and has had mountain fever, and I have no doubt his illness has been much aggravated by the mental anxieties and bodily exertions he has undergone on our behalf. It is bitterly cold at Treasure Hill, and the mines are 9000 feet above the level of the sea. Should we be able to realise next July the dividends we have to pay in the next three months, I shall propose that at the same time we thank him for the time he has, in the first instance, so ably devoted to the interests of this company up to the time of his return to England last year. Our thanks are also due to Mr. G. Atwood, the company's mill manager, who has been indefatigable during Mr. Philpotts's absence. In conclusion, I would bid you wait patiently for the result of the three months' work to be performed by the 60-stamp mill, and do not think what that shall have been accomplished that you will have cause to regret that my firm have introduced to your notice the Eberhardt and Aurora Mining Company. (Hear, hear.)

The CHAIRMAN added that a telegram had informed the directors that the ore on hand, at mill, and mines, was 2750 tons, valued at \$33,000, and all the bullion produced from the commencement amounted to \$173,000. Every place was choked up with ore. He further mentioned that the engine and boilers of the 60-stamp mill had been utilised for the purposes of the wire-way. The loss of mercury in treating the ore did not exceed \$1 per ton. There was no difficulty in obtaining labour.

Mr. HAGGARD hoped that in consideration of the onerous services rendered by Mr. Philpotts, the mill manager, some compliment would be paid to him upon a future occasion.

Mr. A. H. PHILPOTTS was glad to find that the services of his brother were so highly appreciated, but he hoped it would be in a somewhat more substantial way than a mere vote of thanks.

Mr. T. G. TAYLOR proposed that the best thanks be given to the Chairman and directors for their continued attention to the company's interest.

The proposition having been duly seconded, was put and carried unanimously. The CHAIRMAN, having acknowledged the vote, mentioned that the time had been extended for the payment of the new share. Those "ninties" which could not be consolidated had been sold, and the amount realised, 18000, had been placed to the reserve fund.—The meeting then separated.

EAST LLANGYNOG LEAD MINING COMPANY.

The first ordinary general meeting of shareholders was held on Wednesday, at the Clarence Hotel, Manchester.

Mr. JOSHUA MOSS (Sheffield) in the chair.

The CHAIRMAN read the directors' report, which was as follows:—It is with feelings of pleasure that the directors meet their fellow-shareholders on this occasion, and congratulate them on the success of their operations at the mine. It is now little more than three months since the company took possession of this property, during which time they have directed their attention to its vigorous development. They have every confidence in the becoming a great and profitable undertaking. There are several well-defined lodes on the set, all of which appear likely to become productive; some of these lodes have produced and continue to produce large quantities of ore, about 30 tons of ore being now ready for market; this will in a few days be increased to 40 tons, when a sampling will take place. The object of the directors has not only been to prepare the ore for market, but to open out the mine so as to be able to make regular returns; in order to carry out this object they have opened out the various levels, and are now driving a deep adit level so as to drain the whole mine, the facilities for which are almost unappreciated, the whole of the work being carried out by means of levels driven in the mountain. The adit is now 12 ft. wide, and is now ready for market; this will in a few days be increased to 40 tons, when a sampling will take place. The object of the directors has not only been to prepare the ore for market, but to open out the mine so as to be able to make regular returns; in order to carry out this object they have opened out the various levels, and are now driving a deep adit level so as to drain the whole mine, the facilities for which are almost unappreciated, the whole of the work being carried out by means of levels driven in the mountain. 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perly opened up, monthly returns can be made, and leave the shareholders a good profit. It is very desirable of the ore.—E. J. BURN.

In answer to an enquiry from Mr. Megann, Capt. BURN stated that it was quite evident from the various levels which had already been driven in the mountain that as depth was acquired the quantity of lead would be much increased, and the quality improved.

Mr. TAYLOR, the managing director, explained that it was contemplated to drive a still deeper adit than the one at present driven, in order to effectually drain the mine to a still lower level, and as it was intended to drive upon the adit, it would all be remunerative work. He further stated that he had returned from the mine only the previous day, and was pleased to say that the appearance of it was much improved during the last fortnight, and that he had himself seen in the level a solid rib of lead from 10 to 12 in. wide, and in the cross-cut the lead was sprangled through with lead, and a branch was coming in there from 3 to 4 in. wide.

The CHAIRMAN thought that inasmuch as all the indications of the mine tended to satisfy the shareholders that good and satisfactory results would be obtained, it would be their best policy to open it out with patience, and with a view to future permanent returns. He also thought that it was not unlikely that additional capital would be required.

Mr. TAYLOR was of opinion that not more than 2s. or 3s. per share would be required by way of call, and that chiefly for the purchase of additional crushing and dressing machinery.

Capt. BURN stated that he should have about 40 tons of ore ready for sampling by the end of next week, or early in the week following.

There being no further business before the meeting, Mr. TAYLOR proposed that a vote of thanks should be given to the Chairman, which was seconded by Major BRIDGEMAN, and the proceedings terminated.

WHEAL UNY MINING COMPANY.

A general meeting of shareholders was held at the offices of the company, Austinfrilars, on Monday.—Mr. EDWARD KING in the chair.

The SECRETARY read the financial statement, showing the returns for the quarter to be 76 tons 9 cwt. 3 qrs. 4 lbs. of tin, giving a profit of 1379l. 3s. 6d.

Capt. W. Rich, M. Rogers, S. Coade, jun., in reporting on the mine, said:—As intimated at the last general meeting, we have incurred great expense in improving the skip shafts, and have put in 500 fms. of best steel wire ropes for hauling with; instead of heavy chains; these ropes are working well, and are charged with every other liability in the quarter's cost. At the tin dressing floors a great deal of new work has already been done, work is already being completed; this we consider of great importance. The works we are doing here will be of lasting benefit to the shareholders, and must be urged on with the other improvements as fast as possible. The mine is in fork to the bottom, and the different pitches and bargains are in full course of working, and opening out satisfactorily.

The CHAIRMAN stated it gave him much pleasure to meet his co-adventurers on this occasion. Several persons would remember that two years back he stated the machinery of the mine was worn out, and must be replaced by new, incurring a heavy cost, but this would be done from the resources of the mine, and not from the pockets of the shareholders. On looking through the cost he found the profit had in the two years exceeded 5000l., and the old machinery had been to a great extent replaced by new. At surface great improvements had been made in the tin dressing department, and every effort had been made by their competent manager to economise the cost in returning the tin, and save as far as possible the tin from passing off into the streams below. The result has been that on the past three months' working, and the most expensive months of the year, a profit of 1800l. had been made, 40% of which had been spent in dead work for the future benefit of the mine, and they had to-day a balance of nearly 1400l. to deal with.

Mr. BRIDGEMAN was much pleased with the statement made by the Chairman, and he should be glad to know what amount of dividend the committee would recommend.—The CHAIRMAN stated they had fully considered the matter, and would propose that a dividend of 5s. per share (or 1024l.) should be declared, and the balance of 355l. carried forward to the next account. This was carried unanimously.

The SECRETARY stated he had received for signature the new lease for 21 years from the Ecclesiastical Commissioners, at a royalty of 1-24th, the old lease having been at 1-18th.

The CHAIRMAN thought it would be highly satisfactory for the shareholders to know that he had received a communication from Mr. Butler's agent, through the local purser, that in the new grant of the eastern ground a considerable extension of the mine, and not from the pockets of the shareholders, was to the section, the whole of the ends going east from the 45 under adit to the 160 were of a most productive character, and that by an extension of the ends eastward large reserves were being made, and a permanent dividend mine being opened out.

Mr. SOUTH stated that he had only recently become a shareholder, but before doing so he had the mine inspected by a competent agent, whose report was highly satisfactory in all respects prospects and management.

The CHAIRMAN thought that on the present occasion they should recognise the services of their manager, and he had much pleasure in proposing that a vote of thanks be given to Capt. W. Rich, and a gratuity of 20 guineas be presented him for bringing the mine into such an efficient and profitable state of working.—A resolution to this effect was carried.

The committee of management were re-elected, and a cordial vote of thanks passed to the Chairman.

The CHAIRMAN, in acknowledging the vote, stated that this was the first mining property with which he was connected, and it was a source of great pride to him, that after so many years anxiety and outlay the mine should become remunerative. Knowing as he did the resources of the mine, he fully believed that with the present tin standard Wheal Uny would be one of the best dividend mines in the county.—The meeting then terminated.

NEW CENTRAL SNAILBEACH MINING COMPANY.

The third half-yearly meeting of the shareholders was held at the London Tavern on March 31.—Mr. JOB TAYLOR, J. P., in the chair. The accounts showed a credit balance of 2639l. 12s. The following reports of the directors and agent were submitted:—

The directors present a statement of the company's affairs, made up to the 15th March, 1871 (duy audited), and by which an available balance of 2639l. 12s., beyond liability in respect of the credit of the undertaking. Since the last half-yearly meeting the directors have completed the arrangements made with the lessors referred to in their last report, and they used every exertion to complete the new plant on the mine, at Hogston Hall, but in consequence of the severe frost of the past winter, which for many weeks rendered it impossible to carry on any building operations, they have not yet been able to bring it into working order. The erections are now proceeding rapidly, and your directors are assured that they will be completed and the machinery at work before the end of next month. In regard to mining operations, your directors have pressed forward the works to their fullest extent, and have great satisfaction in referring the shareholders to Capt. J. Kitto's report on the condition and prospects of the company's mines. Every exertion will be made to develop the property, and secure the early payment of a dividend. Since the last meeting, Mr. Thos. Thompson has resigned his office of secretary, and the directors have appointed Mr. J. S. Valinwright, of Dudley, to succeed him. From this time the registered office of the company will be at No. 3, Birmingham, in Dudley, the office of Mr. Thompson, No. 5, Whitehall, London, being still available for the purpose of reference and enquiry as heretofore. Mr. E. H. Lowe retires by rotation from the office of director at this meeting, and declines to offer himself for re-election. Mr. Henry Rotton, of Moseley Common, near Birmingham, for many years the manager of the National and Provincial Bank, in Birmingham, but now retired from business, offers himself as a candidate for the directorate. Mr. Bell, the auditor of the company, also retires at this meeting, and offers himself for re-election.—J. TAYLOR, H. M. WAINWRIGHT, R. DUNN, and Mr. J. S. Valinwright, in August last, we have extended the 200 yard level but little, as our main object has been directed towards the deeper development of the mine, in order that we may as soon as possible get out of the influence of the shale, and with this view we have sunk a sump 30 yards below the 200 yard level, where we are again driving out for the purpose of proving the character and composition of the lode. I may, however, remark that in the 200 yard level the lode is of a soft and shaly character, and my opinion is that on the north side of a soft and shaly character, and my opinion is that the driving of this as a pioneer level is well worth considering, as in the Old Snailbeach Mine, adjoining us, the shale has been found much deeper in some places than in others, and we may reasonably expect the same result in our sett. I would also advise the same (200 yard) level being driven east towards the old Snailbeach Mine, as no level has been driven in that direction below the 124. In the 200 yard level we have lately had some nice stones of ore from the part of the lode we are carrying in the driving, but most of the lode in this level is still standing to the south. Our object has been to push on the driving of this level as rapidly as possible, in order to secure better ventilation, by effecting a communication with No. 2 sump, which we are sinking below the 200 yard level, but immediately this is accomplished we shall cross-cut the lode, in order to prove its size and character. I may add that, so far as we have gone, the country rock to the north of the lode has been much more firm and flaggy than in the levels below; this level is now extended west from No. 1 sump about 30 fms. No. 2 sump is now down 3 fms. below the 200 yard level: the lode appears to be very large, and contains a quantity of the most beautiful carbonate of lime, with nice strings of ore, and is improving as it goes down, but we have not yet been able to prove its size; this is also being pushed on in the eastern ground we can find for the same object as mentioned above—to secure ventilation in the level below.—Hill Sett: The engine-shaft in Mytton Dingle has been sunk altogether about 44 yards, and is now down 30 yards below the adit level, where we have driven a cross-cut, and intersected the lode at a distance of 8 fms. on the course of the lode, which, although so far poor for lead, is one of the kindest I have ever seen, and I have not the slightest doubt that it will ere long prove very productive; in the present end it is from 4 to 5 ft. wide, and daily improving in both size and character. I may also add that the water which some time since was so very strong in the sumps below the shallow adit level, and which we had to suspend in consequence, has all been drained dry, notwithstanding its great distance from the deep level, being about 160 yards apart, and the sinking has been again resumed; here the lode is at least 6 ft. wide, and yielding some very good ore. The draining of the water for such a great distance is an excellent feature, and shows that the lode for the whole way is both strong and porous. We have placed a portable engine on the top of the new shaft for pumping the water and drawing the stuff from this part of the mine. The masons and engineers are getting ahead fast now with the erections at the old mine, and would have had the whole complete two months ago but for the long cessation of bad weather, which prevented the possibility of proceeding with the buildings, but they now state that the whole shall be finished by the end of April, and I see no reason whatever to doubt it.—JOHN KITTO.

The CHAIRMAN, in moving the adoption of the report, stated that they would all be sorry that the machinery had not been sooner completed, but everyone was aware that the long and intensely severe winter had interfered with all surface operations, and they could not complain more than their neighbours. Everything, however, was being got on with as quickly as possible.

Capt. KITTO explained that they were driving in the softest and poorest part of the lode in the old mine in order to form a junction with the sump sinking below the 200 yard level, and thereby affect a good ventilation, the air being at the present moment very bad. For the same reason the sump itself was being sunk in the softest part of the lode. In Mytton Dingle, where they had cross-cut the lode it was not possible to have anything more promising. The cross-cut was 80 fms. to the west of the sump sinking through the ore ground, which it completely drained, thus showing the porous nature of the ground throughout—a very good sign. The level from this cross-cut would be 25 fms. below the bottom of the sump, and give that quantity of backs. The two stones of ore now on the table, and which he had himself broken the day previously from the bottom of the sump, would show the value of the lode there.

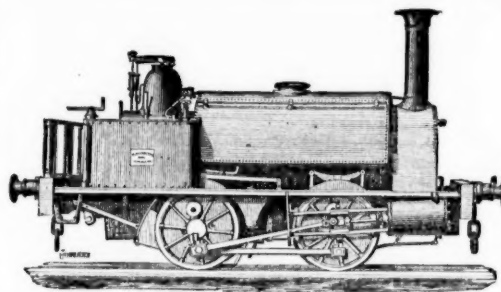
The resolution adopting the reports and accounts was then passed. Mr. H. M. WAINWRIGHT said that Mr. E. H. Lowe having retired from the directorate, due notice had been given, and he begged to propose in his place the name of Mr. Henry Rotton, of Moseley Common, Birmingham, as a director for the ensuing year. Mr. Rotton had been the manager of the National and Provincial Bank in Birmingham for a period of no less than 30 years, but he was now retired, and having plenty of leisure time, and being well qualified from his past experience for such a post, would be a valuable addition to the board. He (Mr. Wainwright) had given a large amount of his time to the affairs of this company, and he might tell the shareholders that whilst their new plant would be one of the cheapest it would be at the same time, for its size, one of the most efficient in the county of the company.—Carried unanimously.

Mr. J. T. Bell was then elected auditor for the ensuing year. Mr. H. M. WAINWRIGHT said it would not be right for that meeting to separate without rendering a cordial vote of thanks to their late secretary for the very valuable services he had rendered the company during his connection with it, and he trusted the meeting would be as unanimous on this point as were the directors. Now that three of the directors reside in the neighbourhood of Dudley the majority of the meetings would be held there or at the mine, and as it would be impossible, as they were aware, for Mr. Thompson to attend these meetings, it was felt that some change was necessary. At the same time he felt quite sure that Mr. Thompson would lose no opportunity of forwarding the interests of the company wherever it was possible, and he might state that the office at Whitehall would continue as a London office of reference, where every informant connected with the company could be obtained.

Mr. R. HILLHOUSE, who had been the company's affairs conducted in the manner in which he had always found the company's affairs conducted. That he on no occasion met with Mr. Thompson without receiving from him every possible information.—Carried unanimously.

Mr. CHARLES HILLHOUSE had much pleasure in proposing a vote of thanks to the Chairman and directors for their services to the company. He was quite sure they had the interest of the shareholders well at heart, and would, if possible, bring the ship into port. He would not sit down without saying how heartily he agreed with the shareholders' expression of the good feeling of directors and shareholders towards their late secretary.

Mr. THOMPSON said he felt deeply grateful to the shareholders present for the manner in which they had received Mr. Wainwright's resolution. He had long felt that he held an anomalous position in the company. It was absolutely necessary that the majority of the directors' meetings should be held in the county, and as the shareholders were aware, from the terrible infirmity under which he was suffering it would be necessary for him to attend them. He felt this was not right, and the company's interest must necessarily suffer. He felt great regret at severing his official connection with them at a time when prosperity would appear to be about to crown their efforts, but they might rest assured that so strong were the ties which bound him to its interests that he would continue to do his utmost to promote the future welfare of the company. Mr. JON TAYLOR made a suitable reply on behalf of himself and co-directors, and the proceedings then terminated.



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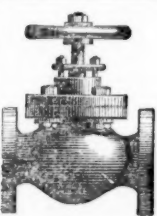
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From the Engineer, BRIDGEWATER TRUSTEES, Walkden.
"I find its lubricating qualities effective and durable."
From DUNS AND CO., Glasgow Locomotive Works.
"We find it a good lubricating oil, and very cheap."
From JOHN HARTOP, Esq., Manager for Earl Fitzwilliam, Elsecar.
"The oil answers my purpose well."
From Messrs. RICHARD EVANS AND CO., Haydock Collieries.
"It answers quite as well as yellow grease (for railway wagons), and at a saving of forty-eight per cent."

From THOMAS EMERSON FORSTER, Esq., Mining Engineer, Newcastle
"I find a saving upon four locomotives of £60 per annum."

From the LANCASHIRE and YORKSHIRE RAILWAY.
"It kept the (fan) shaft perfectly cool, and with a less quantity."

From T. and W. CLARKE, Havelock Works, Leicester.
"Having fully tested its merits, I find it equal to the best lubricating oil have ever used."

From Messrs. HENRY BALFOUR AND CO., Leven, Fife.
"We are glad to say that it suits us admirably, and it gives us better results, at less expense, than other oils."

From CHATWOOD, STURGEON, AND CO., Bolton.
"The men were rather against it at first, but have now, by experience, learned to appreciate its good qualities. It answers our purpose so completely that we shall continue to use it and no other."

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MUSHET'S TITANIC CAST STEEL,

For ENGINEERS' TOOLS,

MINERS' DRILLS, &c.,
Forgings in Steel; Steel Shafting;
Piston Rods, Axles, &c.
Double Shear Steel; Spring Steel;
Blister Steel;

TITANIC STEEL WIRE RODS."

FOREST STEEL WORKS,
COLEFORD, GLOUCESTERSHIRE.

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STRONG ROOM DOORS, &c.,

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TANNERS AND CURRIERS, LEATHER MILLBAND AND HOSE PIPE MANUFACTURERS,
LONG LANE, SOUTHWARK, LONDON.

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MILL BANDS, HOSE, AND LEATHER FOR MACHINERY PURPOSES

TO NERVOUS SUFFERERS—READ AND JUDGE FOR YOURSELVES.

DR. BARNES has just published 20,000 copies of the "SECRET FRIEND," a most valuable book to young men on the Treatment and Cure of NERVOUS and PHYSICAL DEBILITY, LOSS OF MEMORY, DIMINUTION OF SIGHT, LASSITUDE, PAINS IN THE BACK, LOCAL WEAKNESS, DEPRESSION OF SPIRITS, &c., with plain directions for perfect restoration to health and vigor. Sent post free on receipt of two stamps. Address, Dr. J. A. BARNES, 1, Lonsdale-square, Barnsbury.

SPECIAL PAMPHLET ON NERVOUS DEBILITY.—Read the Warning Voice on the Special Treatment of Nervous, Mental, and Physical Debility, Lowness of Spirits, Dimness of Sight, Indigestion, &c. Illustrated with cases. Gives rules for cure by the New Medicines. Dr. SMITH will, for the benefit of country patients, on receiving a description of their case, send a letter of advice GRATIS. Pamphlet (60 pages) free by post in an envelope on receipt of two stamps.—Dr. SMITH, 8, Barton-crescent, London, W.C.

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The most important fact that these alarming complaints may easily be removed WITHOUT MEDICINE.

Is here clearly demonstrated, and the entirely new and highly successful treatment, as adopted by the author, fully explained, by means of which EVERYONE IS ENABLED TO CURE HIMSELF Perfectly, and at the least possible cost.
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BRITISH MINES.

about a fortnight.

DRAKE WALLIS—T. Gregory, April 4: The branches in the 30, east and west of cross-cut, are worth 8¢, per fathom. In the 60, west of Brenton's, the branches are improving, and are worth 10¢. per fathom. The same can be said of Brenton's, are worth 6¢. per fathom for tin, with saving for copper. The branches in the 80, west of Brenton's, are worth 10¢. per fathom for tin. In the same level east the branches are worth 10¢. per fathom for copper and tin. At the 40, east of Matthew, the cross-cut south of the slide has intersected some of the branches, and the ore is rich. In favour of having a better classification in this direction; the slidey ground I hope to have.

DUCHY AND STUCKLEY UNITED (Antimony).—R. Goldsworthy, March 16: I now beg to hand you my report, with recommendations in reference to its future development. I inspected this property on Friday, March 10, which proved a favourable time; fortunately the slides on this occasion made a great cut, and the ore was exposed to view. The ore is rich, but this deposit of antimony does continue its course northwards many fathoms further, than it is in any ordinary lode. I was surprised to see such rocks of rich antimony scattered over the beach, but finding this lode varies in width from 12 to 16 ft. is sufficient to show how the ore is scattered around. The ore available for taking away, by

as for some time past, and a similar remark will apply to the tribute pitches.

GAWTON COPPER.—G. Rowe, G. Rowe, Jun., April 1: King's engine-shaft, sinking below the 32, is going through the lode, which is chiefly composed of hard capels and spar, spotted with mudiic ore. The part of the lode carried in the 32 is composed of hard spar, spotted with mudiic ore, with ore, and slow of progress; we now purpose to continue the drift, and the lode in the short distance further on the north part of the lode, in order to facilitate our progress in getting up under the eastern shoot of ore gone down below the 32, and at that point cross-cut through the south part of the lode. There is no particular change in the character of the lode in cross-cutting south at the 32 east. The ground in the 82 fm. level cross-cut, driving north, is still of a good description, and good progress is being made. The lode in Williams's slope lies in the bottom of the 82 west is worth 4 tons of ore per fathom. Milford's slope in the bottom of the 82 west is worth 4 tons of ore per fathom. The lode in the back of the 82 east is worth 4 tons of ore per fathom. The lode in the 70 is nearly approaching the run of ground beneath Moor's branch, where it is showing a very kindly appearance, and worth 5 tons of good quality ore per fathom. We sampled yesterday (completed) 225 tons of copper ore.

NEW WHEEL TOWAN.—B. Pryor, April 5: No charge has taken place in

work. All the foundations to be cast in this, as several men will be employed in the work when the masons will commence building the boiler-house will be taken out this week, and busy in making the woodwork of the engine and windows, &c., of the engine-house. All the surface work is being pushed on, so that we have a very splendid warm weather, so that we can do a great deal of work now. We are also sinking the engine shaft, and shall be down to water by the time the engine and stamps are set to work, so that we shall have a full supply of water for dressing, &c.

VIRTUOUS LADY. H. Horawill, April 4: Copper Department: Our south
side in the adit level east is very much improved in character since I last re-

Considering the whole matter generally; though there is no doubt that the principles involved in the reasoning would not be always satisfactory in some

singular and abstracted cases; the reader, however, is released from all difficulties that might arise from this cause, by an admirable selection of mines, which of course are those which are not beyond the pale of the writer's arguments, and will, therefore, provided the introduction is well studied, give to the investor no anxiety. Whether by fortune or otherwise, it is not safe to say, but certainly, accepting the brief review contained in the preface to the third edition, there can be no doubt the results of the past three months have fully justified any expectations that the author may have made on his own knowledge and experience. The pamphlet, at any rate, is worth reading if only for the general advice contained therein; and if happy results from the past are good omens for success in the future, worse may be done than to give serious attention to the recommendations which accompany it.

EBERHARDT AND AURORA.—The details of the extraordinary general meeting are reported in another column. Information has been received that the International Mill and wire-way will be running on Monday, and that there are nearly 3000 tons of silver ore at the surface ready to be treated. The three months running of the small Oasis (10-stamp) mill upon ore from the Ward Beecher Mine yielded a profit of nearly 15,000*l.*—in other words, its revenue in two months paid the whole of its purchase cost (10,000*l.*), and left 5000*l.* to the credit. Irrespective of the profits to be derived from the International Mill, which is provided with 60-stamps, the results at present being realised from the small mill alone are equal to a return of 30 per cent. upon the whole capital of the company. Hitherto ore has been taken from the bottom only of Ward Beecher, and it is stated that the mine contains an inexhaustible supply of ore. Eberhardt and Aurora continue to open up most satisfactorily.

WHEAL BURROW AND BUTSON CONSOLIDATED MINING COMPANY are progressing with the placing of the A shares, and it is anticipated that the executive will soon be in a position to fix a day for the closing of the list of applications for shares. Full confidence is felt in the prospects of the undertaking, the prospectus of which will be found in another column.

PERRAN WHEAL VYVYAN.—Operations will be at once commenced on two of the lodes, Nos. 1 and 3, which are highly spoken of in the reports of Mr. Josiah H. Hitchins, of Devon Great Consols, and several others of reliable mining judgment. Although so lately introduced to the public (little more than a week), a large proportion of the shares have been already applied for. The confidence shown by the vendors in accepting shares for their outlay, in bringing the mine to its present position has been evidently well received by the public, and deservedly so. The rich ore broken from the No. 3 or West Chiverton lode, at the adit level, holds out the strongest promise that this mine will be a profitable one upon a comparatively small expenditure.

GREAT WHEAL VOR.—The lode in Edward's shaft is a little disordered, and not quite so well defined as it has been, and is evidently approaching the slide; when last taken down it produced 2 cwt. of tin to the ton of stuff, showing that the lode (though still a good one) has somewhat diminished in value, but there is no doubt that when this slide is passed through the lode will again improve, which the actual practical results show in the excavations from Metal shaft to west of Ivy's shaft; and on examination of the section with past reports, all the richest portions of this lode have been found below this slide. The agents, therefore, attach very little consequence to the immediate falling off in the value of the lode at Edward's shaft, as the mine sinking below the 102, and 104 fms. east of it, which was also disordered in passing through this slide, is now improving considerably, and worth 120*l.* per fathom. The small amount of work yet unfinished in Ivy's shaft is progressing satisfactorily, and the water now down to the deeper levels.

CWM VRON.—All the first issue of 9000 shares have been allotted. Instructions have been given to sink the shaft, and to drive the 24 and 36 fm. levels with all speed. With such a lode large profits are confidently anticipated at an early date.

GREAT SNAEFFELL.—The lode in the 60 was cut a few days since and should it open out as rich as it has done in the 40 the successful future of the mine is assured. Shares have changed hands during the week at $\frac{1}{2}$ to 1 prem.

NEW GREAT CONSOLS.—This property is still improving, and the sales increasing. There can be no question of the value of the mines, and great credit is due to the executive for the rapidity with which the works have been executed. The sales of tin and arsenic are increasing monthly, and as soon as the stamping power is completed to 64 heads the monthly returns will be considerably augmented. The lode is proving of very great value, and it is understood a most careful report on the property will be shortly made by two of the leading authorities in the county. The great size of the lode, and the necessity for cutting into it at various points, has prevented this being done before; but preparations are being actively made for a thorough investigation into its value. Mr. Phillips is shortly about to establish another most promising mine, from which great results are anticipated at an early date.

GREAT ROYALTON has much improved of late. The cross-cutting to the north and south lodes will soon be completed, when the engine-shaft will at once be sunk 10 fms. deeper (i.e., to the 32), and large quantities of tin ground will be obtained. The 32 heads of stamps are fully employed, and an improved batch of tin is anticipated for the month. Altogether the prospects are most cheering, and the mine is reported "never to have looked better."

GREEN HURTH.—We are glad to see a sale of ore announced from this mine so soon after the severe winter, and to hear that more sales will speedily follow. About ten days ago a solid piece of lead ore was broken from the vein (going south into whole ground) 2 ft. 6 in. long, 1 ft. 9 in. wide, and 8 to 9 in. in thickness; computed weight nearly half a ton. The rib of ore was broken from continues on an average 6 in. wide—the height of the level.

ROCHE CONSOLS.—The works are progressing fast here, the engineers having commenced to have the engine into the house, which is completed and roofed in. The dressing-floors are in a forward state, and the stamp-work is now being delivered. The starting of this mine is being looked forward to with great interest, as high opinions are held of its capabilities of production, and the property possesses some unique features, which are considered to add greatly to its value.

HARMONY AND MONTAGUE.—The report from these mines must certainly be sufficient to satisfy the most sceptical. The application of stamping power has of late had great attention, and many improvements have been made. At the Terras Mines the most recent inventions are about to be introduced; and we think the Harmony and Montague proprietors are acting judiciously in not deciding on the system they will adopt until actual proof be afforded of the practical utility of the reported improvements.

SOMETHING LIKE A GOLD MINE.—By an advertisement which appears in our present Journal, it seems that an opportunity offers for buying a few shares in one of the richest gold mines ever opened up on the Thames River. The returns for January reached 1851*oz.* of gold, from the reduction of 292 tons only. The adjoining mine, which has just begun to crush, from 1 ton of picked quartz obtained 2000*oz.* of gold, also in January. This news only reached us by the mail which arrived a day or two ago, via San Francisco.

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

GREAT WHEAL VOR.—Too much praise cannot be given to one and all for the manner in which the arduous task of clearing up the debris of the late disastrous run of ground has been carried out. The damage done by the accident might have been much worse. Everything has been done to guard against such a future contingency. The discovery at Edward's shaft must be most gratifying to those gentlemen of the committee who so many years ago pointed to the western ground as the spot where the riches of the mine lay. A very little time now will establish this fact, as from every indication there is everything to lead to the belief that they are upon a deposit of tin such as has not been seen in Cornwall for many years. We wish this was a more common thing, but a little time will suffice to create a sensation in the few shares floating about.

THE LOVELL.—This mine, which adjoins East Wheal Lovell and New Lovell, has been quietly progressing, and although they have not been at work more than about 15 months they have cut a lode in the shaft worth 20*l.* per fathom, and which induces a conviction, by its improving character, that the Lovell will soon take a position second to none in this rich district.

ROSE AND CHIVERTON.—The ground in the shaft is highly mineralised, with spots of lead in it; this speaks well for the lode, which will be cut at about the 45. There is a fine chance here. Other parts of the mine are looking better.

NEW WHEAL KINGSTON.—This property, situated in the run of the rich silver-lead and copper lodes near to Callington, which has been worked privately for some time, is now showing marked signs of improvement in the adit and shaft. One of the lodes intersected in the adit, after careful assay, was found to contain over 40*oz.* of silver to the ton of ore, besides a large quantity of lead. The present proprietors are sinking the shaft with all speed, in order to see the lodes at a greater depth, where, judging from the opinions expressed by many disinterested but practical men, they cannot well fail to open up a rich and paying property.

WHEAL ARTHUR (Calstock).—The first public general meeting of the shareholders in this company was held on the mine on March 25, when the profits on the four months were shown to be 612*l.* 17*s.* 3*d.*, and a dividend of 1*s.* per share was declared. This old mine, once so rich for copper, is now re-opened, and is being worked for tin. A large amount of good tin ground is already laid open, and further discoveries in depth hold out strong prospects of permanency. The shaft sinking is all done for 60 fms. under adit, which is 50 fms. under surface; and as the tin ground holds throughout, it is plain that good profits can hardly fail to be made, as so little dead work is necessary. This will be one of the prizes of 1871.

BRYNAMBOR.—The mine reports continue good. It will be seen that Captain Spargo has got the drawing machinery complete, and is now hauling lead ore to surface. The important cross-cut north in the lower level has not yet reached the wall of the lode, and is still producing ore. Pumps are on the mine to carry the shaft down another 10 fms., and looking at the good results from so many points at a comparatively shallow depth, and the ease with which sinking can be continued, it seems really probable that the prediction of the late Capt. Francis will be realised, that the Brynambor will be one of the greatest and best mines of the day.

* * With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Collieries in North Durham, their Workings and Machinery, No. XV.; Birmingham and the Black Country, No. XI.; Colliery Explosions; Colliery Accidents, and Coal-Cutting Machinery (J. Rothery); Rating, Taxing, Levying; Mining and Patent Laws of England and Germany; Advantages of Mining Enterprise (J. B. Reynolds); Van Mine, and its Shares; Pen Allt Mining Company; Anglo-Brazilian and Rossa Grande Gold Mines—Meeting of the Iron and Steel Institute—American Mining News—Mining in Canada—Foreign Mining and Metallurgy—Foreign Mines Reports, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, APRIL 6, 1871.

COPPER.				IRON.			
	£	s.	d.		£	s.	d.
Best selected, p. ton	74	0	0	Bars Welsh, in London	7	5	0
Tough cake and tin	72	0	0	Ditto, to arrive	7	2	6
Sheathing & sheets	75	0	0	Nail rods	7	5	0
Bolts	77	0	0	Staf. in London	7	6	0
Bottoms	80	0	0	Bars, ditto	8	0	0
Old	65	0	0	Hoops, ditto	8	15	0
Burra Burra	74	0	0	Bars, at works	7	15	0
Wire, per lb.	0	10	10	Hoops, ditto	8	2	6
Tubes	0	10	10	Sheets, single	9	10	0
BRASS.				Pig No. 1, in Wales	3	15	0
Sheets	8	10	0	Refined metal, ditto	4	0	0
Wire	8	10	0	Bars, common ditto	6	10	0
Tubes	9	10	0	Do. mch. Tyneor Tees	6	10	0
Yellow Metal Sheathing	8	10	0	Do. railway, in Wales	6	10	0
Sheets	8	10	0	To arrive	10	2	6
SPELTER.				Pig No. 1, in Clyde	2	15	0
Foreign on the spot	18	5	0	Do. f.o.b. Tyneor Tees	2	6	0
"to arrive	18	5	0	Do. Nos. 3, 4, f.o.b. do.	6	2	7
ZINC.				Railway chains	5	17	0
In sheets	23	10	0	" spikes	11	0	12
QUICKSILVER (p. bot.)	11	0	0	Indian Charcoal Pigs	6	5	0
TIN.				in London, p. ton	6	5	0
English blocks	130	0	0	STEEL.			
Do., bars (in bris.)	181	0	0	Swed., in kegs (rolled)	12	10	0
Do., refined	184	0	0	" (hammered)	13	0	14
Banca	130	0	131	Ditto, in fagots	15	0	0
Straits	129	0	130	English, spring	17	0	23
TIN-PLATES.*				LEAD.			
IO Charcoal, 1st qua.	1	8	0	English Pig, com.	18	7	18
IX Ditto, 1st quality	1	14	6	Ditto, L.B.	18	0	18
IX Ditto, 2d quality	1	5	6	Ditto, W.B.	19	10	15
IX Ditto, 3d quality	1	5	6	Ditto, sheet	19	0	0
IX Coke	1	2	6	Ditto, red lead	20	10	0
IX Ditto	1	8	6	Ditto, white	28	0	30
Canada plates, p. ton	13	10	15	Ditto, patent shot	20	10	0
Ditto, at works	13	10	14	Spanish	18	0	0

* At the works, 1s. to 1s. 6d. per box less.

Terne-plates 2s. per box below tin-plates of similar brand.

REMARKS.—Nothing has transpired during the week from any quarter materially to alter the position of the Metal Markets. The arts of war and peace cannot flourish simultaneously; and until the continental question, which seems to be becoming gradually contracted within narrower limits, is finally settled, it is hardly to be expected that any decided impulse will be given to trade. In the meantime it is a matter of congratulation that, notwithstanding the obstacles which hinder progress, the market remains almost unaffected as regards quotations—and the soundness of every branch of the trade is unquestioned. It is to be hoped that after the Easter holidays, about which time a disinclination to transact much business generally manifests itself, there may be a turn in the tide of affairs at Paris. Every day's delay in the settlement of the difficulty tends to cripple the national resources, and still further to retard the return to commercial activity and prosperity. The trade of the last quarter has been satisfactory on the whole, and more particularly so when considering that Europe had not emerged from the disastrous consequences of war. In looking forward to the ensuing quarter it seems but reasonable to expect, upon the settlement of the French question, at least as large a share of commercial prosperity as was experienced in that just closed. Indeed a future of yet greater extension of commerce may be fairly anticipated.

COPPER.—The week's transactions show but little variation. The demand is quiet, as it has been since the announcement of the Parisian disturbances, but no signs of weakness are apparent. Holders are not anxious to press sales at reduced quotations, although in a few instances a slight concession, to meet the altered state of the market, has been submitted to. The existing quietness is simply to be accounted for by the unsettled state of the public mind with regard to French affairs. Other features may be viewed as favourable, particularly the continued short supply from Chili, and the firmness of the Valparaiso market. Should the charters prove of a similar character in time to come as in time past, by the end of the year a very material rise in the value of this metal will be effected. Chili bars, 64*l.* to 65*l.*; ores, 13*l.* to 13*l.* 5*s.*; Wallaroo, 73*l.* to 74*l.*; Burra, 74*l.*

IRON.—The report of the iron trade from Middlesbrough continues satisfactory, and further improvement is anticipated. Continental affairs have circumscribed business within narrow limits, but prices have not only remained unaltered, but there is no disposition on the part of sellers to give way. No. 1 pigs are quoted 50*s.* 6*d.* to 51*s.*; No. 3, 47*s.*; No. 4, 46*s.*, net cash. German orders are in the market, and shipments to Hamburg and other German ports are on the increase. The prospects of this branch of the trade being good, new furnaces are being brought into play, two of which are turning out about 800 tons of pig-iron weekly. Makers of the various descriptions of finished iron turned out in these districts are well employed. In rails there is very marked improvement, and in all kinds of iron used in shipbuilding there is a large trade. The reports from South Wales, which for so long a period have been of a somewhat discouraging character, are beginning to improve. Owing to the quietness which had prevailed in this district for the last three months, it was thought not impossible that the ironmasters at their Preliminary Quarterly Meeting, which was held the other day, would reduce list quotations, but in view of the prospects presented for the future it was ruled that there should be no changes. Large orders are looked for from Russia. Russia is in the market for railway bars in considerable quantities. Continental orders will be up to the average, if not in excess, provided only that peace is maintained; and the United States are large buyers, notwithstanding that considerable shipments have gone forward already. The superiority of steel rails is now so thoroughly appreciated, and the price moderate, that a large business may be looked for in the Welsh districts in this variety, inasmuch as suitable material for the manufacture of the same is to be found in the various parts of the country, which in certain localities, and arrangements have already been made to utilize the ore in the fabrication of steel rails. Scotch pigs have not been firm during the week. The variations in price have been from 54*s.* 9*d.* to 54*s.* 4*d.*, within which quotations a fair amount of business has been transacted. A rather better feeling is now apparent in the market, buyers offering 4*s.* 4*d.* cash, and 54*s.* 7*d.* one month. The shipments are good, and the enquiry from America is exceptionally good. This report is up to the 4th inst. Owing to the Easter holidays the iron market was closed on Thursday and Friday. The shipments to the week ending on March 31, 1871 were 19,081 tons, against 19,011 tons on April 1, 1871; decrease, 70 tons. Swedish iron is quiet at the moment, and quotations unchanged.

LEAD.—A considerable business having been concluded at somewhat enhanced prices, it is not surprising that the market for pig-lead should be rather less active than it has been. No change of any importance in quotations has been announced.

TIN.—The deliveries of foreign tin out of stock in London during March have been exceedingly good, and the arrivals since that date have been very small. In all probability, by the end of this month a considerable reduction will be perceived in the stock in London as the consumption, no doubt, will be in excess of the importations. Transactions are reported in spot parcels of Banca at 130*l.*, and Straits 129*l.* to 129*l.* 10*s.*, and for arrival 128*l.* 10*s.* Orders have not been given out freely. The market is in such a sensitive condition that the least improvement in the demand would sensibly affect prices. English is quoted about 1*l.* to 1*l.* 2*s.* higher than was accepted previously to the taking place of the Dutch sale.

COPPER.—Messrs. J. Piteairn Campbell and Co. (Liverpool)—Business transacted during the fortnight comprises on the spot here 247 tons bars at 64*l.* to 65*l.* per ton, 85 tons ingots at 70*l.* to 72*l.* 10*s.* per ton, 140 tons regulus at 13*s.* 6*d.*, and 100 tons Barilla at 14*s.* 6*d.* per unit. To arrive here, 375 tons bars at 64*l.* 15*s.* to 65*l.* per ton. At Swansea a cargo of argentiferous regulus on private terms, and 25 tons J. Edwards bars, to arrive there, at 66*l.* 10*s.* per ton. Arrivals here during the fortnight of West Coast, S.A., produce:—Nemes, from Valparaiso, with 300 tons bars and 85 tons Barilla; Araucania, from Valparaiso, with 200 tons bars, 220 tons ingots, and 30 tons Barilla. At Swansea—Edling, from Carrizal, with 197 tons regulus; San Antonio, from Talca, with 287 tons ores and 363 tons regulus; Emmeline, from Carrizal, with 729 tons regulus. Stocks of copper (Chilian and Bolivian) in first and second hands likely to be available are—

Ores. Regul. Bars. Ingots. Barilla.

Liverpool 1923 2770 10,250 1450 630

Swansea 3493 6522 4,197 1709 242

Total 4416 9292 14,447 2759 872

Representing about 22,000 tons fine copper, against 16,700 tons fine copper March 31, 1870; 10,450 tons fine March 31, 1869; 7800 tons March 31, 1868.

Messrs. James and Shakspeare:—About 1000 tons of ore and regulus, and 100 tons barilla, have been purchased by the Swansea smelters at 13*s.* and 14*s.* 6*d.* per unit respectively. In bars we have not many transactions to note; buyers have, as a rule, only taken such lots as were required to supply pressing wants, and the values of the various brands have differed fully 10*s.* per ton, according to whether they were being pressed for sale, or partly with

to supply an order. Late on Thursday last 100 tons mixed brands were sold at 64*l.*; shortly afterwards 65*l.* lot was paid for the favourite mark, J. Edwards, and during present week about 100 tons lots were disposed of at 64*l.*, whilst 150 tons Urmeneta realised 64*l.* 10*s.* per ton, cash. Yesterday a decidedly better feeling was manifest, 64*l.* 15*s.* cash being paid for 25 tons Urmeneta, and 65*l.* for 150 tons with two months' prompt, the market closing at a recovery of 10*s.* per ton all round from the quotations ruling on the Monday previous. There has not been much doing in Australian, and business in this sort has been distributed through the quantity on sale being limited; of Wallaroo Cake about 25 tons were reported at 73*l.* 5*s.* cash, afterwards 55 tons given 73*l.* 10*s.* same terms, and 50 tons at 74*l.* with extended prompt. There are still buyers at the highest cash figure, but nothing obtainable except at 5*s.* to 10*s.* advance thereon. A small quantity of barra sold at 74*l.* cash. English descriptions are dull and prices a shade easier; business has been done in India sheets and sheathing on terms which have not been transpired, but believed to be a trifle below our list quotation. The direct imports from the West Coast of South America into England during the month of March were equal to 2034 tons pure: into Havre 111, and during the same period 663 tons of foreign copper entered the port of London, making together a total of 2697 tons. The mails received here from Chili during March advised charters for together 3993 tons, against 4687 tons during March, 1870. During present year 8858 tons have been so advised against 12,768 tons in 1870. By advices from Chili it appears that the shipments in January last were only 3932 tons, against 4241 during corresponding period of 1870; the quantity loading and chartered 5675 against 9459, thus showing a total falling off of about 4111 tons.

Messrs. Vivian, Younger, and Bond—A rather important business has taken place this week in Chili produce. About 700 tons of Chili bars have changed hands at from 64*l.* to 65*l.* 10*s.* cash, according to brands, and 65*l.* to 66*l.* for extended prompts. Sales are reported of 800 tons of Chili regulus, and 300 tons of ores at 13*s.* per unit. At the above prices we close rather buyers. Wallaroo is steady at our annexed quotations, and for tough and best selected there are some symptoms of a coming demand.

THE TIN TRADE.—Mr. L. Th. van Houten (Rotterdam, March 30) —Our Tin Market has been quiet during this month, and the transactions have only been on a very limited scale, pending the result of the Dutch Trading Company's public sale. Banca tin was sold in the beginning of the month at 77*l.* 5*s.*, but the demand diminishing the price fell to 76*l.* for spot parcels, while 75*l.* was paid for lots ex sale. The 80,791 slabs in public sale to-day were sold at an average of 75*l.*, with a curtailment of 48 per cent. on the quantity of all orders executed. After the sale some lots changed hands from 75*l.* to 76*l.* 7*s.*, which latter price is now the nominal closing quotation. Billiton tin remains very scarce, but the demand was not large, and a few small parcels ex ship arrived were sold at 76*l.* 7*s.* For a parcel afloat 75*l.* were offered after the sale, but holders demand higher rates. The Billiton Company has given for the Dutch Trading Company's public sale, to be held in Batavia, commencing in April next, up to February, 1872, will each comprise about 7800 pieces, instead of 6000, as hitherto. The following statement shows the position of Banca tin in Holland on March 28 from the Official Returns published by the Dutch Trading Company:—

	1871.	1870.	1869.
Import in March	9,715	26,054	7,457
Total three months	27,485	42,112	22,582
Deliveries in March	2,500	29,300	31,890
Total three months	29,300	31,890	35,701
Stock second-hand	41,600	30,968	60,372
Total stock	149,164	133,880	128,154
Stock of Billiton	3,051	9,691	4,122
Import in March	500	5,050	5,450
Delivered & shipped in March	2,600	2,950	4,350
Quotation (Banca)	75 <i>l.</i> 7 <i>s.</i>	72 <i>l.</i> 7 <i>s.</i>	72 <i>l.</i> 7 <i>s.</i>
March 30 (Billiton)	75 <i>l.</i>	71 <i>l.</i>	72 <i>l.</i>

The preceding returns of 1871, compared with those of 1870, exhibit—A decrease of the import for March of 515 tons, a decrease of the import for the three months of 460 tons, a decrease of the deliveries for March of 155 tons, a decrease of the deliveries for the three months of 80 tons, an increase of the stock second-hand of 355 tons, an increase of the unsorted stock of 145 tons, an increase of the total stock of 48 tons, and an advance of the quotation of Banca of 4*s.* 4*d.*, equal to 7*l.* 10*s.* per ton. The quantity of Banca tin now afloat for the Dutch Trading Company is 18,590 pieces, equal to 1162 tons, against 26,300 pieces, equal to 1644 tons last year. We estimate the quantity of Billiton tin now afloat at 11,365 pieces, equal to 710 tons, against 8841 pieces, equal to 553 tons last year. The Government returns for the month of January are as follows:—

	EXPORT OF TIN FROM HOLLAND.					
	January.		Twelve months.			
	1871.	1870.	1869.	1870.	1869.	1868.
Germany ..Tons	137	146	160	2319	2294	2344
England ..	121	65	107	1886	1184	1349
Belgium	48	255	322	1788	2142	2137
France						
Hamburg	—	9	13	134	111	111
United States ..	—	—	18	89	18	247
Other countries ..	22	9	—	367	310	364
Total ..Tons	328	484	620	6583	6569	6569

THE MINING SHARE MARKET opened very actively this week, and a considerable advance took place in the prices of several mines, especially in one or two tin mines, and in the Shropshire lead mines. The prices of some of the former, however, were not maintained, notwithstanding the 3*l.* per ton advance in the tin standard and the favourable sale at Rotterdam, and considerable fluctuations have taken place in quotations. The mines mostly dealt in have been West Chiverton, South Crofty, Wheal Vor, Tincroft, South Condurrow, Roman Gravels, Tankerville, West Frances, East Grenville, Grenville, East Lovell, Cook's Kitchen, Van, Hingston Down, Carn Brea, East Cadaron, Wheal Uny, Eberhardt and Aurora, and a few others.

West Chiverton advanced after the meeting, and leave off 32*l.* to 33*l.*, ex dividend. The accounts presented to the meeting showed a balance of 15,227*l.* 9*s.* 10*d.*, charging up costs to the end of December, and after payment of a dividend of 2*l.* per share (6000*l.*) a balance was carried forward of 9227*l.* 9*s.* 10*d.* The meeting having been put off for a month to bring up sales of lead, which had been prevented in their usual course owing to breakages in the machinery and the impossibility of dressing so much lead during the severe frosts of January, the present accounts showed four months' sales against three months' costs, but it was explained there was considerably more than one month's lead on the mine unsold, and worth, including 150 tons of tributers' ore, about 4000*l.* The report was considered more favourable, and there are several important points to come off in the mine before long. Altogether, the meeting was considered satisfactory, and the agents state the mine will be a lasting and profitable property. The 130, or bottom level, is worth 10*l.* per fathom for part carried east, and 20*l.* per fathom west. The various points valued in the report are

April 10—New Great Con.	9	13	1	5	..	66	5	0	..	640	5	6—	ditto
April 1—Wheat Uny....	13	0	0	7	..	77	13	4	..	1009	13	2—	—

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Notices to Correspondents.

■ Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be kept on receipt: it then forms an accumulating useful work of reference.

CRUSHING MACHINES.—In the Supplement to last week's Journal there is a letter signed by Mr. E. G. Spilbury, of New York, in which mention is made of the Dodge Crushing Machine and some Prussian Crushers. If any of your correspondents can inform us where these machines are made, or particulars respecting them can be obtained, we shall be much obliged.—R. J.

Can any reader inform me what the price per ton or otherwise of "Pyrolusite" is; whether it is unadulterated peroxide of manganese, or, if not, what are the other substances combined with it; and where the principal supply of this mineral is got from?—MANGANESE.

GUN-COTTON.—Will some correspondent state the addresses of makers of Gun-Cotton either in this or other countries?—J. S.

DYNAMITE.—"M. and P."—Every information concerning Dynamite and the necessary caps and fuses to be used with it can be obtained of Messrs. O. Webb and Co., of Carnarvon.

BARYTES.—Will any correspondent inform me where there is a market for barytes?—J. A.

VIRTUOUS LADY.—"An Intending Shareholder" can obtain the information he requires on application to Mr. Barnard, at the offices of the company.

Received—"H. C." (New York)—"T. S." (Nottingham)—"G. T." (Houghton-le-Spring)—"One of the Oldest Shareholders in South Cornduff Mine"—"C." (Newark)—"A Shareholder in North Troburget"—"D. J." (Shrewsbury)—"R. Knapp (Nevada)—"E. G. Spilbury (New York)—"W. Hoskin (Sweden)—"Wm. Earl (Beckenham)—"J. R. N."—"T. P."—"A. R."

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, APRIL 8, 1871.

STANDARD RAILS—IRON AND STEEL.

Through the extension of commercial intercourse the necessity of uniform standards of weights and measures daily becomes more generally recognised, and it is to the facility which it offers for the extension of commercial intercourse that the high appreciation and ready adoption in engineering establishments of the system of standard gauges proposed and introduced by SIR JOSEPH WHITWORTH may be attributed. An equally important proposition has now been made by MR. HENRY BESSEMER in his inaugural address as President of the Iron and Steel Institute, and as its adoption will prove of great economic value, not only to the iron trade, but to purchasers in all countries, it may be hoped that it will meet with an equally favourable reception. If he succeed, and we doubt not that he will do so, in securing the general recognition of the principle of using only standard rails, he will have conferred an inestimable boon upon a most important trade, and upon the supporters of it, and will have obtained for the Iron and Steel Institute of Great Britain an historical name throughout all civilised countries.

Referring to the manufacturing standards that have already been adopted, MR. BESSEMER very truly stated that we owe to SIR JOSEPH WHITWORTH's standard gauges that great advantage derived by the manufacturer and user of machinery in which those accurate and definite sizes of parts have been introduced, and all will acknowledge the accuracy of his observation that, perhaps, the most marked application of the employment of standard screw threads—in the manufacture of welded iron gas pipes—is so familiar to us that the amount of advantage derived from it is rarely appreciated to its full extent. The obvious advantages of the system result in the continual extension of the principle even to an entire mechanical structure, as in gun-making, where every part is made to a standard pattern, so that the possession of a few duplicate parts will enable a broken or otherwise useless rifle to be perfectly restored in a few minutes, at a cost immeasurably below that which would have been required to make a single part to order. And it must be borne in mind, he continues, that this system of standard sizes not only affords great advantages to the general public, but it lessens the cost of production by admitting of the employment of special tools and appliances for the production of these numerous pieces which could not be employed in the chaotic state reigning in our manufactories before these principles were applied.

Great, however, as is the advantage of a uniform screw thread in general machinery, and of uniformity in the parts of a rifle, there would be even greater advantage in the general adoption of standard rails, because the use of rails is happily far more common than that of rifles, whilst the cost of making rolls is so great that unless a large order for a particular section can be secured, manufacturers frequently find it more advantageous not to tender at all than to attempt to compete with those who have rolls of the required section. The result to the purchaser is obvious; he is confined to a limited market, and compelled to pay the higher price due to the absence of competition in consequence. But if all manufacturers had equal facilities for supplying a purchaser's requirements, as they certainly would have were standard patterns of rails generally adopted, every purchaser would be enabled exactly to suit himself, both as to quality and as to price; he will merely determine what particular brands, obtainable at the highest price he is disposed to pay, will best suit the purpose for which the rails are to be used, and ask for and accept the tenders accordingly. The rails of various makers could, moreover, be used without inconvenience in carrying out a single contract, and thus, especially in the case of foreign countries, communication with which is practicable at minimum freights at certain seasons only, railways could be more economically constructed, and could, therefore, be made more remunerative to those supplying the capital to make them.

That we know pretty accurately what is the general average traffic on a line, and what is the weight of engine in use, is acknowledged; and as MR. BESSEMER states, the work which a rail has to perform is so perfectly simple, and so clearly defined, that there cannot at the present day be any difficulty in establishing a standard rail, suitable for all purposes. But it is obvious that in determining of what section this standard rail shall be the merits of, and objections to, every particular design must be well studied and discussed before a final conclusion is arrived at; and it is by exerting itself to find the best standard, that the Iron and Steel Institute can readily demonstrate its usefulness. It is probable that neither the double-headed nor the Vignoles section will prove the most desirable for a standard, especially as steel rails seem destined to replace iron ones to a much greater extent than hitherto. The standard rail must be one that can readily be made to work together of the three standard strengths,

whether rolled in iron or in steel, and must secure the maximum strength with the smallest weight of metal, and at the same time be free from complications of form, which add to the cost of manufacture or of laying. It is to decide upon such a rail that the Iron and Steel Institute are asked to devote themselves during MR. BESSEMER's term of office, and none who have seen the energy and skill with which all matters hitherto taken up by it have been dealt with can doubt that the result will be satisfactory. As Great Britain is the market for rails, recognised by all countries, it will, perhaps, be well to invite deputations from the chief engineering societies in foreign countries to assist in the deliberations at the meetings of the Institute, and thus the way may be paved for obtaining the adoption of standard rails throughout the world, just as we may hope hereafter to enjoy identity of weights and measures in countries having commercial relations with each other.

THE MINES REGULATION BILL—THIN COAL MINES.

The Mines Regulation Bill, in its present shape, appears likely to affect most prejudicially the interests of the owners of Thin coal collieries in the West Riding of Yorkshire, as well as in other districts. It may be said that coal mines differ from each other in no greater or more essential point than that of thickness. The quality also differs very much, but the thinner a bed of coal is the richer it must be to make it worth the attention of the capitalist. Seams which are thin and poor in quality are not worth notice, whilst those which are still worse in quality, yet thicker, are often worked to a profit. They are distributed over certain districts, each vying with the other for an existence in the shape of patronage from the general public. There are seams of coal in the North of England varying from 3 ft. (which is rather the exception) to 6 ft. Those in South Yorkshire, Derbyshire, Nottingham, and Staffordshire are generally much thicker, whilst those lying within a six miles radius of the towns of Halifax, Bradford, Leeds, Wakefield, and Huddersfield, in the West Riding of Yorkshire, and many of those in Lancashire, are beds of coal now being worked varying from 16 in., or perhaps less, to 2½ or 3 ft.

The thicker beds named are in essentially colliery districts, where it may be said coal is the staple product, and where large populations are collected together, whose one and sole object is mining; whilst the thin beds are almost without exception in districts in which the mass of the population is devoted to manufacturing. All those mines compete with each other in the same markets, and it will not be difficult to understand that a Thick bed can be produced at the pit's mouth at a much less cost per ton than a Thin bed, so that consequently when Thick coal is sold to the consumer at a price brought low by competition with its neighbours, the Thin coal must be sold at such a price as to leave no profit at all. The Thick coal mines have another advantage over the Thin mines. They can command labour at a less price, and in the essentially Thick coal districts both men and lads must accept work in the mines, or not at all. In the manufacturing districts, however, where the Thin beds are situated, there is, of course, strong competition for labour, so that the owners of Thin coal mines are thus placed at a double disadvantage as compared with those working Thick beds. The Thick coal mines can be and are worked by men who, many of them, never entered a pit until they were upgrown, whilst for a man to be able to earn a livelihood in a Thin coal mine he must have been brought up to it in early life.

We have a Coal Commission, whose report may be expected to be given to the public shortly, who will tell us that the Thin coal mines of the kingdom bear no insignificant proportion to the whole, and that the working of them at the present time is of vast importance to the welfare and prosperity of the manufacturing districts, and perhaps not less to the kingdom generally, when it is recollected that the best iron used in the manufacture of guns and engines is due in a great measure to the coal obtained in those mines.

With such facts before us, taken in connection with the Mines Regulation Bill of 1871, prepared and modified by MR. BRUCE and others, it may be far from uninteresting to notice how, in what manner, and to what extent the provisions of the Bill are likely to affect the interests of the two descriptions of mines we have endeavoured to describe. Clause 5 few will object to. But Clause 6 says—

"That no boy above the age of 10, and under the age of 13 years, shall be employed in, or allowed to be for the purpose of employment in, any mine below ground for more than three days in any one week, or for more than twelve hours in any one day, or otherwise than in accordance with the regulations hereinafter contained."

Now, in a Thick coal mine the manager would prefer not to have a boy coming within the scope of that clause for any purpose whatever, and we believe there are many large collieries in the Thick seam districts where such a child could not be found. But there was a marked difference when they applied the same clause to a Thin coal mine. The different grades of workmen are colliers, hurriers, and pony drivers. In a Thin coal mine a youth becomes a collier very frequently by the time he is 15, 16, or 17 years of age; and as he advances in years he naturally looks for and obtains employment in the thickest bed his master may have at his disposal. Now, if they began to make a man of a boy of 15 or 16, which was not a question of pleasure, but of positive necessity, it necessarily followed that they must begin with a child at a much earlier age in a Thin coal mine, in order to preserve the same proportion of youthful and adult labour as prevails in a Thick bed. It is a well-known fact, and one capable of easy proof, that the proportion of boys ranging between the ages of 10 and 16 years is at the present moment too small for the requirements of the men employed in Thin coal mines. If such, then, is the actual case, and of which there is not the slightest doubt, it may well be asked how MR. BRUCE can expect such mines to be carried on at all when he limits the labour of boys between 10 and 13 to half time? If it meant anything, it meant a double supply of boys, which could not be obtained. It may be said that under the present Act the restriction is to 12 years of age, unless the lads can read and write. Well, it is admitted that that Act, for eighteen months or two years after it came into force, placed certain collieries, more particularly the Thin ones, in a very awkward position; but the result was that parents saw the necessity of at once sending any child they might have above 10 years of age to school, so that he might learn, and so comply with the requirements of the Act. Many colliery managers state that for some time after the passing of the Act children of little more (if any) than 10 years of age regularly presented themselves for employment, and in many instances it was no unusual thing for a boy asking for employment, on being asked how old he was, to reply, "Ten years, yesterday."

There is another point of view in which the Bill of 1871 may be regarded. If its effects will be, as is believed, like applying the provisions of the Factory Act to mines, then the two cases are widely dissimilar. Factories employ female labour as a rule, whilst mines, very properly, are restricted to male labour. Few will contend that it is not right and proper to restrict female labour to 13 years of age. They simply assist their parents to provide support for the rest of the family from that time until they are, perhaps, 18 or 20 years of age, then they marry, and, probably, become mothers of families. Boys, on the other hand, have to learn an occupation which is to serve them for a livelihood as long as they live, and we all know he is generally the best man who is put to it early in life. Factories employ boys too, and thus drain away a certain proportion of those lads who would otherwise have become miners.

Clause 7 says "No male young person above the age of 13, and under 16 years, shall be employed in, or allowed to be for the purpose of employment in any, mine below ground for more than 56 hours in any one week, or otherwise than in accordance with the regulations hereinafter contained," and Clause 8 says "The period of each employment shall be deemed to begin at the time of leaving the bank, and to end at the time of returning to the bank," and that "not less than one hour shall be allowed for meals during each period of employment which exceeds five hours," &c. If a boy under 16 work, or rather be in the pit, 56 hours per week, we have an average of nine hours and twenty minutes per day. From that must be deducted, in many cases, half an hour at each end of the day, going to and getting fairly at work, ceasing work, and reaching the bank, with one hour for meals, and thus we have his labour restricted to seven hours and twenty minutes per day. Men are dependent at all times upon boys, and by that means their object will be attained—a limitation of their labour to eight hours a day or less.

It is contended by colliery owners and managers that the working

of Thin coal mines in accordance with the requirements of the Bill cannot, under the most favourable circumstances, be carried out. A conscientious man wishing to comply with the provisions of the Act will have the mortification to find that he is unable to compete with mines of thicker beds, and vast quantities of coal will be left unworked which would otherwise have been got, and so have conduced to the general welfare and prosperity of the country. The owners of Thin coal mines ask to have the same advantages as those having thick beds; and from their point of view, we think they have been justified in asking MR. BRUCE to pause and consider seriously what will be the effect of the clauses previously noticed upon the Thin coal mines throughout the kingdom.

It is said that MR. BRUCE's interest lies solely in Thick beds. If so, then he ought more jealously guard against conferring any advantage upon those working Thick beds, which he would not be equally willing to present to the owners of Thin beds. This is the more necessary, seeing that at the present time an adequate supply of lads for Thin seam collieries cannot be obtained, whilst in very few instances can machinery be adopted in them.

Having thus stated the difficulties presented to the carrying out of the clauses relating to the employment of boys in Thin coal mines, we come to what the owners and managers of them desire to obtain, as they are desirous of carrying out the provisions of the Education Act of last year, and believe that the object aimed at by MR. BRUCE can be arrived at without passing (to them) such stringent regulations as are proposed in the present Bill.

They desire, it appears, to have in Clause 6 the word "twelve" substituted for "thirteen." In Clause 7 that the word "twelve" shall also be substituted for "thirteen," and that instead of the words "fifty-six hours in any one week," it shall be altered to "one hundred and twenty hours in any one fortnight." Also that it should be a requirement of the Act that boys of 11 years of age who can pass an examination on a certain standard (standard by new code, say) shall have a certificate granted authorising them to work full time. As the object of the clauses in the Bill to which we have drawn attention is for ensuring to boys a certain proficiency in education, it is desired by the mine owners, who are obliged to employ those who are not more than 11 or 12 years of age, that the educational standard should be defined, and so permit the parents of such children to have the advantage of their labour as a fitting reward for pushing them on in education in earlier life.

We have thus given the views of a large and important body of employers of adult and youthful labour, who have a vast capital invested in a business which appears likely to be seriously affected should the Mines Regulation Bill be adopted. Seeing that there are many hundreds of miles of Thin coal as yet unworked, and that the clauses in the Act will not only close a large number of mines where the seams are, perhaps, not more than 1 to 2 ft. in thickness—indeed in the West Riding the Halifax and Thornton beds were worked where they were only 11 and 12 in. thick—and altogether stop the development of the minerals in many districts, the subject is one that ought to receive every consideration at the hands of our legislators. Amongst the Members of the House of Commons who are interested in the question may be mentioned the Right Hon. G. HARDY, of the firm of HIRD, DAWSON, and HARDY, of the Lowmoor Ironworks, who have some nine or ten pits in the neighbourhood of Bradford, and it is to be hoped that he or some other gentleman will bring the matter under notice when the Bill gets into Committee, if only for the purpose of elucidating the facts, and making known the position in which the Thin coal colliery proprietors will be placed should the clauses relating to boys be adopted as they now stand.

GREAT NORTHERN AND MIDLAND TRAFFIC DISPUTE.

A freighter from Yorkshire and Derbyshire by both these companies' lines supplies us with some particulars as to the dispute, which we believe may be taken as accurate.

It has been pretty generally circulated that the aggregate reductions made by the Midland were in excess of those made by the Great Northern, the reductions by the former being variously stated at 3s. 1d. and 3s. 3d. per ton, and those of the latter company 2s. 11d. per ton. This statement is incorrect.

On March 10 the Great Northern Company reduced 8d. per ton, making their total reduction 2s. 11d., but that of the Midland then stood at 2s. 3d. On the 24th ult., however, the Midland lowered a further 4d., to date from the 10th, making their total reduction 2s. 7d. The Great Northern Company, true to their professed determination to reduce the differential rate between Derbyshire and South Yorkshire from 1s. 4d. to 8d., followed up this by a reduction of 4d. on April 1. The reductions as at present are, therefore, 3s. 3d. from South Yorkshire and 2s. 7d. from Derbyshire, by the Great Northern and Midland respectively.

What the future action of the Midland directors will be is, perhaps, doubtful. If their last reduction was the result of a decision not to carry traffic at a loss no one can, perhaps, justly complain (as at present they receive a higher rate from Clay Cross than the Great Northern do from Doncaster, which latter is a much greater distance). But, on the other hand, if it was intended as a proposal to compromise, and a giving up of the principle of adherence to the differential rate as ratified by the recent arbitration, it is difficult to conceive that such a line of policy will be accepted as satisfactory by the collieries dependent on the Midland for access to the metropolitan markets. In that case the Yorkshire coalowners will have just reason to congratulate themselves on the entire success of the *comp d'état* of their ally, the Great Northern Company.

Such a termination would be serious for the interests of the Derbyshire proprietors, they being, practically speaking, excluded from the ports of shipment by extra rate of carriage. To be also bereft of a moiety of the advantage of their local position, as to the metropolitan and southern markets, by a railway company having no colliery whatever situated on its whole length, will be a serious blow, as also a humiliation, indeed.

BAR IRON.—The exports of bar, angle, bolt, and rod iron from the United Kingdom fell in February to 13,297 tons, as compared with 23,867 tons in February, 1870, and 24,366 tons in February, 1869. The decline appears to have extended to every grade of consumption. The United States took from us 2540 tons in February, against 3490 tons in February, 1870, and 3424 tons in February, 1869. In the two months ending Feb. 28 this year the aggregate exports of bar, &c., iron from the United Kingdom were 29,162 tons, against 41,987 tons in the corresponding period of 1870, and 49,806 tons in the corresponding period of 1869. Italy figured in these totals as the largest consumer, and the United States ranked next. The only country which took more of our bar, &c., iron in the first two months of this year was British America; the exports to all other quarters of the world presented a decrease. The value of the bar, angle, bolt, and rod iron exported from the United Kingdom in February amounted to 106,406l., as compared with 185,503l. in February, 1870, and 181,560l. in February, 1869; and in the two months ending Feb. 28 this year 237,794l., against 325,753l. in the corresponding period of 1870, and 370,731l. in the corresponding period of 1869.

SUPPLYING MINES, &c., WITH LIGHTING GAS.—Messrs. G. HUNTRICK, colliery manager, J. SWINBURN, engineer, and J. WILSON, colliery viewer, of Barnsley, in specifying their invention for improvements in means or apparatus for supplying mines and other places with lighting gas, describe the objects of their invention to supply mines and other places situated on much lower level than the gas-holder with lighting gas in a cheap and convenient manner. For this purpose they employ and adapt the induced current produced by a steam jet for drawing the gas into and forcing it down a pipe leading to such mine, or near the bottom of the pit it is led into a receiving vessel of convenient size and shape, entering the same at the top; this receiver serves to separate and condense the steam which collects as water at the bottom, and flows off by a syphon-pipe. The gas goes off by a pipe from the top of the receiver, and is distributed to the burners as required.

MOTIVE-POWER ENGINE.—The invention of MR. T. IVORY, Edinburgh, relates to that class of rotary engines in which a cylinder revolving eccentrically within a non-circular close case forms an abutment for the motive fluid by being in contact with it at one portion of its circumference, and consists in the use of a single slider instead of the two or more hitherto used. The revolving cylinder is provided with a single slider passing diametrically through it, and the case is constructed of a form to a small extent deviating from the circular, and in such a way that both ends of the slider are at all times in contact, or nearly in contact, with it. The internal revolving cylinder or drum is placed so much eccentrically with its surrounding case that a portion of its circum-

ferential surface is always practically in contact with the internal surface of the drum or casing, thus constituting the abutment or stop from which the motive fluid reacts. The revolving drum is kept in place within the case by means of ends or covers, and diametrically through the said drum an opening is made to receive the slider, which is so made that where it projects from the revolving cylinder it fills or nearly fills the space between the said ends or covers.

CORNISH NOTES.

BY J. Y. WATSON, F.G.S.

WEST CHIVERTON, within the last two months, has been depreciated in market value 15% per share, or 45,000Z., and chiefly upon rumours which, it seems, had no foundation in fact. The severe frost and snow during January month prevented two or three samplings from taking place in their regular course; and the agents, unwisely as I thought at the time, and still think, put off the usual quarterly meeting for a month. From this originated the vague reports that eventually resolved themselves into almost positive assertions, and caused many of the shareholders to sell out their shares, one following another like a flock of startled sheep. I have more than once, in the *Mining Journal*, stated my disbelief in these reports, but they gained ground, and were fostered on the market. These assertions were—1, that the largest shareholder had sold out; 2, the mine was very poor; 3, it was heavily in debt; and, 4, the balance of 90,000Z. carried forward at the last meeting was a "myth."

To investigate these charges, and arrive at the truth, if possible, I attended the meeting in Cornwall, on Friday last, when the accounts were audited and passed. All those present were assured by the purser that every debt and liability of the mine was charged up to the time of audit—the end of December; and that there was nothing owing for machinery, or for anything else. The accounts showed a credit balance of 15,277Z. 9s. 10d., which, according to the books, consisted of bank balance, ore bills in hand, and bills due for ore actually sold. After payment of the dividend of 6000Z., which was then declared, the balance to the credit of the company to the date of the accounts was actually 9227Z. 9s. 10d. It should be mentioned here, however, that, owing to the severe frost, and one or two breakages of machinery, and I may add also, the bottom level not turning out so well as expected, it took four months to sell the same quantity of lead usually sold in three months, and, consequently, it appeared that four months' ore were credited against three months' cost to December, and January cost was not charged. I, therefore, asked the manager the quantity of ore he had on the mine *unsold*, including dressed and undressed; and the reply was, 1700Z. on the surface, and 150 tons of tributaries' lead broken underground during the last month (say) altogether, 4000Z. worth.

In regard to the state of the mine, the bottom level—the 130—is improving, the east end, on the part of the lode driven upon, being worth 10Z., and the west end 20Z. per fathom. This shaft is down 6½ fms. towards the 140; a winze, down 6½ fms. below the 120, and some fathoms ahead of the 130 end, is worth 25Z. per fathom on the north lode. The run of ore ground in the mine is 190 fms. long, with the ore dipping west, and to get into the heart of this ore ground the new shaft has been in course of sinking for some years, and the outlay upon it for engine, plant, sinking, &c., has been about 20,000Z. This shaft is now down 126½ fms. In the 120 the ends are worth 30Z. per fathom each; and when the shaft gets to the 130, a large body of ore ground will be laid open. This I consider one of the most important points in the mine, and the bottom of the shaft sinking on the north lode is worth 25Z. per fathom. A very large sum of money has been spent in engines and plant in the different shafts, all paid for out of profits, and amounting to 50,000Z. altogether. The last outlay, only a short time ago, for extra machinery, &c., was 4000Z., and this has been charged and paid for; and there now are, in fact, three mines—"Glubs," "Batters" or the New, and "Hawkes's." From Hawkes's the ore dips west, and the new shaft, to which I have referred as 126½ fathoms deep, is about 130 fathoms further west of Hawkes's, to take the dip at that point. Glubs's shaft, which has been years in sinking, at a cost of some thousands of pounds, is about 70 fms. still further west, and intended to take the lode in the 110; it is now sinking below the 107; this, therefore, has not yet come into play, but will do so very shortly, making up the three productive mines, which have already cost an enormous sum of money to lay out, and will require no further expenditure for plant, &c.

The first dividend was paid in October, 1863, and from that time to this the amount divided among the shareholders as profit (in addition, of course, to the outlay of 50,000Z. on machinery), has been 143,125Z.

I have thus endeavoured to give as fair and impartial an account of the mine as I could obtain; and in the opinion of the agents it will continue to pay dividends for years to come, but it will greatly depend, in my opinion, upon the 130 fathom level, and the success at the new shaft and Glubs's, whether the dividends will be kept up to 2Z. per share quarterly.

But it must also be considered that the outlay mentioned for machinery and plant—50,000Z., and the sinking of shafts in dead ground, &c.—has been a charge during the last eight years of not less than 70,000Z. a year, all paid from returns of lead, in addition to the dividends; and as this outlay is now at an end, decreased returns ought to give equal profits upon the mere current costs.

In conclusion, I may add there are 411 shareholders in the mine, and as some may have been told that lead mines are not generally rich in depth, I would here remark that of Herodfoot and Mary Ann, two dividend lead mines in Cornwall, the former is rich at 170, and the latter at 300 fms. Great Laxey, one of our richest lead mines, is also near 300 fathoms deep. The greatest depth of West Chiverton is 130 fathoms from surface.

CHIVERTON VALLEY.—I regret I had not time to visit this property, which for some time was looked upon as beyond a speculation. Capt. Juleff, however, speaks very hopefully of it, and is as sanguine of success as ever.

WEST FRANCES has improved for tin in the 95 east, the 132 east, and the 120 west, and in the 60 a counter lode has been met with, with rich stones of copper, but not much can be said about it at present.

COOK'S KITCHEN is also looking well, and will, I heard, pay a dividend of 12s. 6d. per share at the meeting, besides laying out 1000Z. on a new man-engine.

WHEAL UNY is looking particularly well, and raising 1 ton of tin a day. Here there will, probably, be a dividend of 5s. per share at the meeting.

WHEAL GRENVILLE and EAST GRENVILLE are looked upon as the "coming mines" of the Camborne district; both are now working at a profit, and likely to increase their returns. At Wheal Grenville the most important features are the two cross-cuts towards the South Condurrow rich lode, one in the 110 from the north shaft, and the other from the 140, the latter, in my opinion, the most important, because the lode not only dips south 4 feet in a fathom, but going west it carries its head towards Wheal Grenville. It appears to me that a little unpleasant feeling has been somehow or other created between the two mines by the various and conflicting reports circulated about this lode; but there need not be any such feeling; the richer South Condurrow becomes the better for Grenville, and the richer Grenville is the better it will be for the whole district. The question, so far as Wheal Grenville is concerned, is this, the rich lode reported worth 150Z. per fathom in the 72, at South Condurrow, runs from 20° to 30° south of west, and, consequently, is likely to enter the western ground of Grenville; but it underlies southwards more than 4 feet in a fathom, and, therefore, they say dips into it at once. But before entering upon this I would first explain to non-mining readers that lodes running east and west dip north or south—that is to say, they dip, or go in depth, in a slanting direction, like the roof of a house. In South Condurrow King's shaft is about 40 fms. from Grenville boundary; but Vivian's shaft, further west, is only 24 fms. from the boundary; the run of the lode, which is from 20° to 30° south of west, has brought it at the 62 fathom level 1 fathom south of the shaft, or 23 fathoms from Grenville boundary; now, in driving to cut the lode in the 72, the underlie was so great that it took 8 fms. to reach it, and this, taking the run of the lode, would bring it to within 15 fms. of Grenville. In the 82 they had to cross-cut more than another 8 fms., bringing the run of that level at Vivian's to within 6 fms. of Grenville; and in the 90, if the lode keeps the same underlie as in the 80, it would be about 2 fms. into Grenville sett. I should mention also that the lode in some places is many fathoms

wide, and this might, probably, bring it in at the 82. This, then, is the Grenville story, founded, it is said, on actual surveys and measurements made by their agent, underground at South Condurrow, and on their plans. They also tell me at Grenville the men underground can hear the men working in South Condurrow. And, to prove all this on the part of Grenville, cross-cuts are being extended, first at the 110, from the north shaft (the collar of which is 13 fms. from boundary), and is equal to the 90 in South Condurrow; and also in the 140, considerably further west, and this ought to take both the run and the dip.

Of course the South Condurrow people will not admit all this; they "pooh-pooh" it, and say lodes sometimes turn their heads, and change their dip, and Grenville are welcome to theirs when they get them, &c. I had the pleasure of seeing Captain Vivian, senior, at South Condurrow, and he was very kind and obliging in showing me the plans and sections; and there was one thing which has struck the Grenville agents particularly, and which also struck me—nothing whatever has been done in the 90 cross-cut, towards the lode, for six months. Of course, Grenville people say it is because it is up to the boundary; it is equally of course that South Condurrow deny it altogether; and when the Grenville agent gets an order to go underground to see if the water is always in. If this latter circumstance is really owing to the fact that the engine is too small to keep the water, then this must have been known to the agents when they were so unwise as to pay a dividend at the meeting.

I do not want to disparage one mine in order to favour another. I wish to arrive at the truth, or as near it as possible, and certainly the weight of evidence so far is in favour of Grenville, for several independent agents who had inspected both mines assured me there was no doubt whatever—1, as to the great underlie of the lode; and, 2, that it must enter Grenville. The only thing which can possibly be in dispute is, at what point does it leave one and pass into the other?

South Condurrow has a very rich lode in the 72, and has other good and important points, and is altogether a very promising mine, but it must have an outlay for machinery to work it properly, and will lose its richest lode in depth. Wheal Grenville is well supplied with all necessary machinery, has good paying lodes, independent of South Condurrow, and is also a rising property; the best advice, therefore, I can give is this, let every shareholder in South Condurrow buy into Grenville, and each shareholder in Grenville buy into South Condurrow, and then both parties will be able to say with truth—"We have got the lode."

Wheal Grenville is returning about 1000Z. worth of tin per month, at a cost of about 850Z. South Condurrow returns about 1800Z. per month, at a cost of about 1500Z.

East Grenville next sampling will be over 300 tons of copper, in addition to the tin; the mine is opening out well, and must shortly make good profits.

P.S.—The above remarks were written in Cornwall on Saturday last, and on Monday an agent went underground at South Condurrow to measure for me the cross-cuts, and to make a detailed report. The water, he states, was in the mine up to the 82. The cross-cut in this level, which was commenced 25½ fms. west of King's shaft, and, therefore, towards Vivian's, has been driven south 27 fms. 5 ft., and the main part of the lode not yet intersected. The bearing of the lode here is from 25° to 30° south of west. From the 51 to the 71 the underlie or dip of the lode towards Grenville was 27½ fms., and if the lode keeps its present dip under the 72 and 82 cross-cuts he calculates it will be in Grenville in the 90. In the 72, going towards Vivian's, the end is worth from 150Z. to 180Z. per fathom, with a bearing 20° south of west.

REPORT FROM SCOTLAND.

April 5.—There has been the prevalence of rather easier terms in our Pig-Iron Market since last report, with a pretty good business doing in warrants. On Friday the market closed quiet, with buyers at 54s. 10s. a month and 54s. 6d. cash. This week opened with a steady market but drooping prices, which on Monday closed at 54s. 8d. a month, and 54s. 4½d. cash. Yesterday a fair business was done at 54s. 7½d. and 54s. 8d. a month, and 54s. 4d. to 54s. 5d. cash, closing buyers at the best. The market to-day was firm, without much iron offering, and prices gradually advanced from 54s. 4½d. to 54s. 7d. cash, and 54s. 8d. to 54s. 10d. a month, closing buyers at the higher price, sellers a shade higher. No. 1, g.m.b., 55s.; No. 3, 54s. 8d. No. 3 in demand and scarce, makers being delivering. The shipments for the week are just about equal to those of the same week in 1870, the returns being 19,011 tons this year, against 19,081 tons in the corresponding week last year. The stock of iron in Connal and Co.'s and Canal Company's stores on March 31 was 395,168 tons, with warrants in circulation for 378,780 tons. The monthly averages of pig-iron for this year, as compared with those of last, were:—

	January.	February.	March.
1871	51s. 6d.	52s. 3d.	53s. 8d.
1870	50s. 3d.	51s. 7d.	51s. 3d.

The makers of pig-iron are stiff in their quotations, and are waiting for an advantageous turn in prices rather than seeking to sell forward.

The following are the quotations of the brands enumerated:—

	No. 1.	No. 3.
G. M. brands at Glasgow (deliverable alongside) ..	54s. 3d.	54s. 3d.
Gartsherrie ditto ..	53 0	55 0
Coltness ditto ..	55 0	55 0
Summerlee ditto ..	51 6	54 6
Langloan ditto ..	58 0	54 6
Carnbroe ditto ..	58 0	54 6
Calder, at Port Dundas ditto ..	59 0	54 6
Glenamnock at Ardrossan ditto ..	59 0	55 6
Dalmellington ditto ..	55 0	54 0
Ellington ditto ..	55 0	54 0
Carra at Grangemouth ditto ..	55 0	54 0
Shotts ditto ..	56 0	57 0
Kinnell at Boness ditto ..	54 6	52 6

Finished iron continues in good demand, but specially for ship-building purposes, there being considerable specifications on the market. The Monkland Iron Company are partly busy with a contract for patent tram rails for Monte Video. As we noticed some time ago, the Bills before Parliament for tramways in this country would likely absorb a considerable amount of iron, and we are glad to see the manufacture of this kind of rail introduced into Scotland. The tin-plate makers at Coatbridge—in the midst of a busy trade—have been annoyed by a strike amongst their puddlers for an advance of 6d. per ton on their produce. The company has a good supply of puddled iron on hand, which enables them to go on with their work, and it is not expected that the strike will be of long duration. Quotations for all classes of manufactured iron as last reported. The rivet and cut-nail trade is fairly busy, especially the former, and the tube makers and copper and brass founders are well employed. The clearances from this port during the week embrace the following denominations of finished iron:—Rails, 297 tons; wrought 62 tons, and 90Z. value; bar, 585 tons; malleable, 115Z. value; goods, 6Z.; hoop, 14 tons; sheet, 1 ton; rivets, 125Z.; nails, 32Z.; cast pipes, 210 tons; cast goods, 6804Z. value. In addition we notice during the past ten days sugar machinery to the value of about 17,000Z.

Coals are, if anything, easier in price, but coalmasters are pretty well filled with orders, large shipments taking place to the German ports and those of British North America. House coal, 7s. to 7s. 9d.; splint, 7s. 6d.; shipping, 6s. 9d. to 7s. 6d.; burnt coal, 10s. 6d.; coke, 18s., all per ton f.o.b. in the Clyde, less 2½ per cent. During the week we have had exceedingly large shipments—not less than 36,352 tons foreign, and 30,727 tons coastwise—= 67,079 tons, against 39,010 tons in the corresponding week of 1870. Colliers fully employed, and working quietly in the meantime.

During the month of March 10 vessels were launched, of about 13,000 tons; and we notice several well forward in the yards between this and Whiteinch—a distance of about 2½ miles.

CARBONIFEROUS SHALE.—At the Natural History Society of Glasgow meeting last week, Mr. John Young exhibited a specimen of carboniferous shale from the roof of one of the upper coal seams in Spring Hill pit, near Baillieston, showing a portion of the stem of a calamite with attached slender branches of a plant with numerous whorled leaves, formerly regarded by botanists as belonging to asterophyllites or anularia. Mr. Young stated that the remains of calamites were abundant in the roof shales of many localities in the Lanarkshire coal field, but that it rarely happened that any of the foliage of the plant was found attached to the stems—the specimen exhibited being the only example he had ever met with, although examples had been found elsewhere in British carboniferous strata.

Mr. Young next referred to the class of plants to which the extinct family of the calamites were most nearly related—the recent equisetaceae, or horse-tails, found in our marshes, of which the fossil calamites were the gigantic progenitors. Recent discoveries of the stems of calamites in the coal measures, with portions of the foliage attached, have proved that the plants with whorled leaves formerly referred to the genera *asterophyllites*, *anularia*, and *sphenophyllum*, were the foliage of various species of calamites, and that the genera *volkmannia* and *pinularia*, of which he exhibited specimens, were their roots—these facts being established on the evidence of the more perfect specimens found, and the better knowledge now obtained of the relation and affinities of the plants of our coal measures.

TRADE OF THE TYNE AND WEAR.

April 6.—There has been an average supply of vessels during the week, and a good business done in all branches. A quantity of timber has arrived from Norway and Germany, also large arrivals of ore by steamers from Norway. The ports being well supplied with ships has caused freights to recede considerably. Coal freights to the Mediterranean and Black Sea ports are lower; the Alexandria rate is now reduced to 19Z. The exports of rail iron, &c., continues to be large, and all branches of the iron trade are exceedingly brisk. The home demand for pigs, bars, rails, plates, &c., is extremely good, and prices are improving. Foundrymen and engineers are extremely busy, and marine engine builders have more work than they can possibly get through. The only engines to be had now at once are colliery hauling and winding engines, and the demand is improving a little for them.

GREAT STRIKE OF ENGINEERS AT SUNDERLAND.—A large number of men employed in the shipyards, engine-shops, smiths' yards, &c., have suddenly turned out for what is called the nine-hours movement. A great meeting was held on Saturday, when the views of the men supporting the movement were freely expressed, but the men present would not allow those opposed to the movement to express their views, and it was then determined that if their demands were not complied with they would stop all work if possible. What they demand is that they cease work at 5 instead of 6 o'clock, as at present, the wages to remain the same. These branches of trade are extremely brisk at present, and this is the result. Shorter working time, more wages, and weekly payments, all are demanded, and unless disputes are settled in all cases by arbitration strikes without end may be expected.

Disturbance still continues among the coal workers at Thornley Colliery, and the partial strikes they have resorted to before the expiration of their yearly agreement, are not only illegal but disgraceful and suicidal. By this means they have succeeded in doing much mischief to their employers, and have not the slightest chance of deriving any benefit therefrom themselves. It will be recollected that some of the men were brought up a week ago, and charged with this illegal conduct, and were fined by the magistrates, and this has still more exasperated the men, and has not led them to act in a rational and reasonable manner. There is evidently a considerable amount of ill-feeling prevailing, and this is to be feared is engendered, as has been before remarked in this letter, by a few rabid unionists, who aim at nothing less than the entire control of the works. For some time they have been making complaints, and writing letters to the Government Inspector for the district, and all of these communications have not been written in the most complimentary or respectful spirit; and on Friday last a deputation of the men, headed by Mr. J. Jackson, appeared at the residence of the Inspector, and there made a complaint to him to the effect that certain of the workings in the 6 ft. 4 in. seam contained a great accumulation of gas, and were not in a safe state. Mr. Willis at once agreed to proceed to the works and make an examination, and the result of this was that he reported that no danger existed from the cause alleged.

The change we alluded to last week as likely to take place in the management of these works has been already carried out, and Mr. Philip Cooper, the newly appointed manager, had a conference with the men on Saturday, when he submitted to them conditions for working during the ensuing year, those conditions being the same as those which in the hand already offered to the men, with the exception that 6d. per score is now offered additional in some parts of the workings. This was agreed to by the men, but as Mr. Cooper intimated that he would not engage Jackson and Cairns, those men having been already refused by the former manager, being charged justly with having caused much disturbance at the works, the men threatened to repudiate the agreement, and also to strike. At a meeting held the same evening, the men agreed to sign the agreement provided Cairns and Jackson were re-admitted to the colliery, a strike being threatened should that condition be rejected.

A deputation from the North of England Ironmasters' Association had an interview with the directors of the North-Eastern Railway Company on Friday last. The object of the deputation was to urge upon the North-Eastern board the adoption of a uniform system of mileage charges for the carriage of pig and manufactured iron. The deputation consisted of Mr. E. Williams, Mr. Edgar Gilkes, Mr. W. Whitwell, Mr. Fry, and Mr. John Jones, secretary. It is understood that the result of the interview is to be the application to the rates for the carriage of pig and manufactured iron a mileage scale, the same as that which has been recently adopted by the company for regulating the charges for the conveyance of minerals required for manufacturing purposes. The traffic on this system continues to increase very rapidly, and in order to meet this, the new line by Team Valley is to be opened as soon as possible; and in addition to this a number of sidings are being formed on the east side of Gateshead, and also a new line, making three distinct lines, is in course of formation from Gateshead to Felling, in order to relieve the very heavy traffic which is constantly passing over this part of the line. The new line from Pelton to Jarrow and Shields is also nearly completed, and is expected to be open very shortly.

At the Wardley Colliery an excellent seam of coal has been reached. This colliery was commenced in 1857, but owing to an influx of water and other causes the works were in abeyance until resumed in 1868, and at last a valuable seam 4 ft. 6 in. thick, of the very best household coal (the Bensham seam), has been reached, and shipments will shortly commence in the Tyne. This new colliery will employ a large number of men, and still further extend the trade and importance of the neighbourhood of Jarrow-on-the-Tyne.

NORTHERN INSTITUTE OF MINING AND MECHANICAL ENGINEERS.—At the meeting of members, on Saturday, there was a good attendance, the chair being occupied by Mr. E. F. Boyd, the President of the Institute. A lengthy report was read by the secretary, showing the progress which had been made with the handsome new building, comprising coal trade offices, mining institute rooms, Wood memorial hall, &c. This building is now approaching completion, and it is a very handsome and commodious structure. It appears that at present there is a deficiency of 400Z., which will be required to clear the costs of the undertaking. A number of new members were elected, and also some were re-elected for election at the next meeting.

A paper was read by Mr. Waller, containing additional remarks, and, indeed, forming a supplement to his papers "On Steam-Bolters." He directed attention most particularly to the mechanical construction of bolters, the mode of joining the plates, and inserting rivets, &c., and showed some plates riveted together which had been subjected to a test for the purpose of ascertaining the breaking strain. Those experiments, of course, possess great interest, and it was ultimately determined to carry them out further—the results to be submitted to the Institute at a future time. Mr. Lawrence also exhibited diagrams showing proposed improvements in the ordinary cylindrical boiler. He proposes to introduce tubes so as to cause better circulation in those boilers, and prevent deposits and incrustation. He also proposes certain alterations in the position of the fire-grates, and in the mode of firing.

REPORT FROM THE NORTH OF ENGLAND.

April 6.—A steady improvement is observable in the Iron Trade of the North of England. The pig-iron trade in the Cleveland district is in a satisfactory position. The quantity of pig metal now being shipped from the Tees to Germany, Holland, and Belgium is large, and more would be transmitted thither were makers still to get vessels with greater readiness. A general complaint is the scarcity of vessels for the conveyance of the iron on order for delivery. The market at Middlesbrough on Tuesday was thronged, a larger number being present than we have noticed for some time past. Prices were firm, 47s. being had without any difficulty for No. 3, and the other numbers were sold in proportion. The orders booked were not very many, and for quantities comparatively light, makers, as a rule, being sold for some time forward, and indisposed to take many orders at present rates, having fair prospect that, with a settlement of continental troubles, prices will advance. The make of the district is being well kept up, and increased by the blowing-in of new furnaces. The Cleveland Ironmasters' Association return for last month has not been issued yet, but it is confidently expected that the stocks will show a decrease upon February. These particulars we shall give in next week's *Journal*.

The Manufactured Iron departments exhibit considerable activity. The rail mills are fully employed, and as the season advances the pressure will be greater. Makers are generally in possession of fair quantities of orders, and there is now little to fear but that this season will be a very brisk one. Prices are slightly better, but we fear that an average of the prices obtained for orders this year would fall below that of last season. Several contracts now on hand were booked when competition was very keen, and orders very scarce, and the low prices then obtained considerably reduce the rates recently secured—that is, when comparing an average of the value of present rail contracts and the figures generally published as being current quo-

tations. Shipbuilders' iron is in active demand, and better prices are being obtained. The shipbuilding yards along the north-east coast are unusually busy. The demand for iron vessels is increasing, and there is a certainty, unless something unforeseen occurs, that this year will be a brisk one for the shipbuilders in the North. Marine engineering establishments are fully occupied, and have almost more work than they can conveniently get through just at present, while general engineering firms are likewise very busy.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

April 6.—The business doing at the ironworks in Derbyshire is becoming very active indeed in nearly all branches. At Staveley, one of the principal foundry establishments in the kingdom, and long noted for its pipes and other castings, the full resources of the works are scarcely able to keep pace with the demand for nearly all quantities of iron. There are now four furnaces working, and two more iron-cased ones will shortly be ready for putting in blast. At Sheep-bridge there is also more doing, and the output of pig-iron is large, and the same is also the case with regard to Wingerworth, Clay Cross, and the works on the Erewash Valley line. There is scarcely so much doing in House Coal at some of the collieries, but it is a significant fact that the return of the quantity of coal carried to London by the various lines having termini there during the past month has probably been larger than ever it has been, being no less than 390,617 tons. It is, therefore, evident that the London merchants are taking advantage of the reduction in the rate to lay in stocks, being impressed with the idea that the present rate cannot last much longer. Clay Cross still maintains the leading position, having carried during the month 34,628 tons. A large tonnage of coal is also being sent to Birmingham and the West of England, to which districts a very extensive business is done by the Staveley Company, who have some five or six collieries, raising something like 800,000 tons yearly. Steam Coal is improving in demand.

The heavy branches of the Sheffield trades are still active, and the armour-plate mills in full swing, and are likely to continue so, seeing that the estimates have provided for the laying down of a large number of vessels during the present year, principally in Government dockyards. Shields for coast defences will also absorb a good many plates from 1 inch upwards. Railway material, from locomotives to rails and springs, have kept matters so far busy, and the probabilities are that with the advancement of the season, and the shipments to the North of Europe, there will be greater activity than at present. The Bessemer steel works are still very busy in rails, tyres, plates, and other materials, and a good deal of what is produced in plain steel is being shipped for America and other countries, whilst the home trade is also absorbing a considerable quantity, so that stocks are not retained by makers. In the Rotherham district a steady trade is still the rule so far as regards not only the production of pig, but of manufactured iron also. The Parkgate Company is still busily engaged in the rolling of plates and rails, the former being for the framework of shields.

The district, we regret to hear, is about to lose the services of our friend Mr. P. COOPER, of the Holmes Colliery, who, we understand, takes the management of the Thornley Colliery, near Durham. Mr. Cooper was one of the most active members of the Midland Institute of Mining Engineers, and one of the principal promoters, who a little more than a year ago raised it from obscurity and uselessness, and made it a practical and valuable society, with which mining engineers consider it an honour to belong to. Several of the papers read by Mr. Cooper combined thorough practical knowledge, with a happy facility of expression, great research, and power of illustration, not often found amongst even so intelligent a body as that of our mining engineers.

On Saturday last there was a meeting of the South Yorkshire Steam Coalowners' Association, at the Angel Hotel, Doncaster. There was but a moderate attendance, the chair being occupied by Mr. Bartholomew. The business was only of a formal character.

On Wednesday the ordinary monthly meeting of the Midland Institute of Mining Engineers was held at the rooms at Barnsley, Mr. W. Meddison in the chair. A paper on "Double-decked Cages" was read by Mr. Mitchell, of Worsbro'-dale, and one "On the Use of Gunpowder in Mines," by Mr. Hopton.

COLLIERY OFFENCES.—At the Royton Court House, Mr. Walter Evans, agent for the Oldham, Middleton, and Rochdale Coal Company, was summoned at the instance of Mr. Dickinson, colliery inspector "for not having, on March 13, produced an adequate amount of ventilation to dilute and render harmless the noxious gases in the workings of a colliery situate at Crompton." It appeared that the workmen followed their employment with naked lights. On the day mentioned a lad, named Stead, went into a working said to contain 6 ft. of noxious gas, and immediately an explosion took place, which resulted in Stead's death. Mr. Dickinson did not press the charge, and the defendant was only ordered to pay the costs.—At the same Court, Joseph Fielding, an underlooker at the colliery named, pleaded guilty to a charge of having neglected to use safety lamps after ascertaining that there was an accumulation of fire-damp. He was fined 20s., and costs.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

April 6.—The Coal Trade in the Northern part of the county continues in a very unsettled state, in consequence of the serious flooding of so many of the mines. Better qualities of fuel are costing the earthenware makers and other large consumers 2s. 6d. to 3s. 6d. per ton more than the usual rates. This condition of affairs is, of course, very serious, and united action by the representatives of the industries most affected is now under consideration. Good brands of Pig-iron are realising 62s. 6d. per ton, delivered in Wolverhampton, and some satisfactory sales have been effected on account of the new quarter. Finished Iron continues to improve in request, and most of the mills and forges are making better time than we were able to report a few weeks ago.

In the South Staffordshire district the Coal Trade is very buoyant for the season. The pits around Dudley and West Bromwich, and the collieries in the Cannock and Rugely district are especially in buoyant operation. Best household coal is selling at 11s. to 14s. per ton; ditto mill and forge, 8s. to 10s.; gas, 7s. 6d. to 8s. 6d. Native ironstones are in well sustained request, at firm quotations. The Iron Trade is steadier this week, both in the pig and finished departments, but the prospects of the quarter do not favour the hope of a sufficient demand to require the lighting of many additional furnaces, or to call into requisition the full producing power of the mills and forges. The confirmation of the official list as to the ruling prices of the new quarter has given general satisfaction to the trade. Indeed, despite vague rumours that had gone forth to the contrary, the idea of a reduction in nominal quotations and in wages had not been seriously entertained. It is undoubtedly true that in many instances the selling prices of common iron are out of all proportion to the rate of wages, the latter being regulated by the official list. It would, however, have been most unwise, especially now that trade gives some hope of early improvement, to disturb the labour market of the district, which, so far as the iron trade is concerned, was perhaps never in a more settled and satisfactory condition. The makers of best pigs are booking large orders on account of the new quarter, at satisfactory rates; but for the lower qualities prices vary considerably. On the whole, however, these latter show an improvement proportionate to the increased value of hematite and other ores. One or two additional furnaces are being got ready for re-lighting.

With regard to the recent failure of Messrs. Onions and Co., of the Dudley Port Furnace, the resolutions passed by the principal creditors were confirmed at a meeting held on Monday, at the Dudley Arms Hotel. Finished iron is steadier in several of the leading descriptions. Sheets have especially improved, large quantities being now required for galvanising purposes; and smithy bars, angles, boiler plates, and small rounds may also be particularised as having lately come into more buoyant request. Despite this improvement, however, the aggregate demand does not more than suffice to give an average of four and half days per week in the operations of the mills and forges. In rails there is scarcely anything doing, but for wrought-iron bridge and girder work, as well as for rolling stock, some very fair contract orders are being placed in the district. A strike has taken place this week at the Shakespere Foundry, Wolverhampton, in consequence of a dispute as to the present system of reckoning. For a long time past there has been considerable dissatisfaction among the men as to the length of the reckonings, which frequently extended to six or seven weeks. On Monday a deputation

of the men waited on the firm (Messrs. T. and C. Clarke and Co.) and requested the adoption of some better system. This request was promptly declined, and the men, to the number of 140, as promptly left their work, and were still on strike as this parcel is being dispatched.

SOUTH MIDLAND INSTITUTE OF MINING, CIVIL, AND MECHANICAL ENGINEERS.

The usual monthly meeting of members was held in the rooms of the Institute, Wolverhampton, on Monday. In the absence of the Government Inspector of Mines for the district, who is the President, Mr. H. Beckett, F.G.S., the past President, was in the chair. There were also present Messrs. D. Jones, F.G.S. (Shrewsbury), Silas Bowley, F.G.S., Thomas Rose, James Cope, F.G.S. (the hon. secretary), W. W. Glennie, James Butler, Henry Wilcock, Jun., Henry Tally, J. S. Tatlow, Henry H. Beckett, Daniel Bagnall, S. Penn, John Naylor, J. Gethin, T. Price, T. Hawkins, James Perv, James Bromley, Wilson Underwood, George Pringle, John Laxton, and S. Mansell.

Messrs. Henry Fowler and Henry Hughes, both of the Barber's Field Ironworks, Bilston; with Mr. J. Kellison, Deepfields Ironworks; Mr. George Claridge, Mill fields; Mr. Arthur Hill Maurice, St. George's, Wellington; and Mr. Thos. Roper, Shropshire Row, Bilston, were all elected hon. members; and Mr. John Randall, of Madeley, was nominated for election as an hon. member. Mr. James Bromley read a paper on "Craig and Bidder's Patent Magnetic Lock for Miners' Safety Lamps." The paper was illustrated by diagrams, and by a lamp and a lock of the kind to which the paper related. The locking part of the lamp was specially devised to prevent miners unfastening or tampering with it. Any attempt would be left plainly visible on the lamp when it should be returned by the miner to the lamp-house. It was impossible for the miners to unlock the lamps without the application of a magnet or battery to the bottom of the lamp. The lamps have been in use, he said, at the Woodshutts Collieries, Stoke-on-Trent for the last twelve months, and had given every satisfaction to the managers and workmen. The colliers liked this lamp extremely well, as it is much lighter than the Clanny, and gives a better light; and the manager had informed him that they had not known of any tampering with this lamp by the colliers. They highly approved the lamp, both as regards safety and economy, when placed in the hands of the workmen. One special advantage connected with the lamp was that the colliers took much greater care of it during work, because in case of the lamp being extinguished, the collier had to take it to the station where the opening apparatus was fixed in order to get it lighted, which would necessitate a considerable loss of time and hinder him in his work. The locking of the lamp was simple, and much more easily performed than with the ordinary key.

After the discussion—which the rules of the society do not allow to be published—Mr. Bromley was thanked for his paper. The discussion upon the extension of the northern end of the South Staffordshire coal field was resumed, and closed the meeting.

REPORT FROM MONMOUTH AND SOUTH WALES.

April 6.—There is, perhaps, very little more activity to be witnessed at the ironworks this week than last, but the aspect continues to gain in cheerfulness. It will, no doubt, be less difficult to realise the actual position of the Iron Trade when the Quarterly Meetings are over, and the misunderstanding which clearly has existed lately between manufacturers and sellers in regard to prices will be removed. For the last two or three months the lowness of the rates obtainable for finished iron has had the undesirable effect of curbing any inclination on the part of ironmasters to enter into heavy transactions, even while they were most anxious to find more regular employment for their men; and the unsettled state of continental affairs induced merchants and consumers to limit their transactions as much as possible, with the hope that still lower prices would be acceptable to sellers. The reduction in wages rather fostered that expectation for a short time, but now it is to be hoped that such a state of things has ceased. A more decided course will be adopted by makers, and list quotations, though unaltered, will, it is believed, be more strictly adhered to, so that henceforth transactions will be more freely entered into, both by consumers and manufacturers. Peace being maintained, a period of prosperity to the trade is now pretty certain. Although improvement is not rapid, a sound and healthy position is gradually being re-assumed, which promises well for a fair degree of activity during the summer months.

The civil war in France has, no doubt, its effect upon business, and makers' expectations are not yet realised in that direction. In this district, however, it is, perhaps, much less felt than in others where rail-making is not so extensive an industry. From those countries not interfered with by the disturbances in France there is a pretty good demand for railway iron, and other descriptions of make. The demand generally for rails may be said to be improving satisfactorily, and there are strong hopes entertained that this branch of the trade will again be attended with the long-missed activity. Large contracts are beginning to come to hand from Russia, Canada, and Australia, and to the United States clearances continue on a large scale. sanguine expectations are entertained that even larger purchases will be made for Russia this year than last. Plates, bars, &c., are also in improved request on foreign account. Home transactions are, perhaps, becoming somewhat more active, enquiries for rails being made by several local and other home railway companies.

As hinted in previous reports, more and more attention is being directed to the manufacture of steel rails, and this branch of the trade promises to become a most important one in the district. The new steel works are being pushed forward with considerable expedition by Mr. Siemens at Llandore, upwards of 200 men being employed in their erection. A report is also gaining currency that Mr. H. H. Vivian is about to construct new steel works in the neighbourhood of Swansea. This being the case, it is important to find that the Ebbw Vale Company have succeeded in making speigleisen (an important ingredient in the manufacture of steel rails) from sphatose ore, of which the company are understood to have abundant supplies. Samples of the speigleisen have been obtained by the Dowlais Iron and Steel Company for trial, and there is little doubt but that it will be turned to extensive use at those works. The fact has led to numerous varieties of Cornish sphatose ore being exhibited at the local metal markets, where they were analysed, and regarded with considerable favour.

There is but little fresh to be reported in reference to the Tin-Plate Trade. The works continue pretty regularly employed.

In the Steam Coal Trade there is not quite so much doing as might be desired, the civil war in France having a serious effect on purchases in that direction. The exports from the principal local ports last month show a considerable falling off, which must be attributed to two causes—the check to the

French demand, and the partial turn-out of the colliers in the last week of the month. Nothing like the anticipated activity can prevail until a more settled state of things exists on the Continent. Coastwise the trade continues tolerably steady, the enquiries on account of the West of England and Ireland being about the average.

The wages agitation has not yet subsided. After holding a monster mass meeting, at which upwards of 12,000 men assembled, the colliers decided upon returning to work during the present month, and that delegate meetings should be held in the meantime to consider what course should be taken afterwards. Another difficulty has now, however, arisen with the hauliers of the Rhondda Valley, where they have stood out for two or three days at several collieries. This will, of course, further interfere with business, as the colliers cannot work while the hauliers are out. The hauliers complain that they are subjected to a greater reduction than the colliers.

The Patent Fuel Trade shows some improvement. Coke is also in active request, chiefly on Staffordshire account.

The colliers of the Aberdare Valley have held mass meetings for the purpose of discussing the desirability of their joining the Amalgamated Association of Miners, and it has been agreed to form lodges of the association in various parts of the district, so that all the colliers and miners might join and pay their subscriptions without difficulty. It was also urged that when one-third-fourths of the men have joined the association none but "Union" men should be allowed to work in the pits.

The important new section of the Rhymney Railway, extending from Cardiff to Caerphilly, was opened for passenger traffic on Saturday last, the report of the Board of Trade Inspector, Colonel Rich, who had inspected the works, having been satisfactory. The company are now rendered independent of the Taff Vale Company, over whose rails they have had to run their trains for a considerable distance, at a great cost, for some years, and a large increase of traffic is likely to be the result. The Rhymney Company have other important actions in contemplation, it being their intention to open up communications with the Rhymney Ironworks and the Merthyr, Tredgar, and Aberavenny branch of the London and North-Western, which will give a direct route from Cardiff to the Midland and Northern Counties.

The arrivals at Swansea include—the Plover, from Rotterdam, with 135 tons of steel iron, for Landore Siemens' Company; Eurydice, from Bilbao, with 213 tons of iron ore, for Holway Brothers; Florence, from Langesund, with a cargo of timber, for A. Siery; Cambella, from Carloforte, with 710 tons of iron ore, for H. Bath and Son; Britannia, from Antwerp, with 113 tons of spelter, for the Governor and Company of Copper Mines.

The National Colliers' Accidental Death Fund Committee, appointed by the Cardiff Chamber of Commerce, have addressed a letter to Mr. Bruce, the Home Secretary, enquiring whether provisions could be incorporated in the Mines Regulation Bill now before Parliament compelling landowners and colliery proprietors each to pay one-eighth of a penny per ton upon all coal raised, and compelling every working collier to pay 4s. per annum to form the fund mentioned.

THE TIN-PLATE TRADE.—The quarterly meeting of the trade was held at the King's Head Hotel, Newport, on Wednesday, Mr. Woodruffe, of the Machen Works, in the chair. There was a large attendance of manufacturers, and others interested in the trade. The accounts received from the establishments were more satisfactory than was the case three months ago, scarcely any stocks being held by makers. The American sales are large, and advices from that country show that the considerable stocks which were held some months ago have been almost entirely cleared, hence transactions are readily, and with freedom, entered into. The chief difficulty which manufacturers have to contend with is in regard to prices, for with the advance in hematites, and the continued high price of tin, there ought to be a corresponding rise in the quotations for tin-plates. The fact that stocks are reduced to so low a point will, however, it is hoped, lead to quotations being better maintained for the current quarter. It was agreed that quotations should remain as fixed at the last quarterly meeting—39s. per box for charcoal 10, delivered at Liverpool, and other quantities in proportion. The members, as usual, dined together after the meeting.

RAILWAY CARRIAGE COMPANY (LIMITED).
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, and EVERY DESCRIPTION OF IRONWORK.
Passenger carriages and wagons built, either for cash or for payment, over a period of years.
RAILWAY WAGONS FOR HIRE.
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MANUFACTURERS OF RAILWAY CARRIAGE, WAGON, and CONTRACTORS' WHEELS and AXLES, and other IRONWORK used in the CONSTRUCTION OF RAILWAY ROLLING STOCK.
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THE BIRMINGHAM WAGON COMPANY (LIMITED)
MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.
EDMUND FOWLER, Sec.

WAGON WORKS.—SMETHWICK, BIRMINGHAM.
Loans received on Debenture; particulars on application.

THE BURLEIGH ROCK DRILL.
THE BEST AND ONLY PRACTICAL DRILL
IT DOES NOT GET OUT OF ORDER.
PROGRESSES through Aberdeen granite at the incredible rate of 10' per minute.

SAVES £5 a day as compared with hand labour, independent of the enormous saving effected in the general expenses, such as PUMPING, VENTILATION, INTEREST OF CAPITAL, &c., from the fact of the "put out" being increased four-fold.

DRILL POINTS.—The saving in steel alone is considerable. One drill will go through 20 feet of Aberdeen granite without sharpening.

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MESSRS. CHAS. BALL AND CO., of 96, NEWGATE STREET, E.C., LONDON,
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OSLER'S CRYSTAL GLASS CHANDELIERS.
TABLE GLASS OF ALL KINDS.
CHANDELIERS IN BRONZE AND ORMOLU
MODERATOR LAMPS AND LAMPS FOR INDIA.
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Perran Vychan Silver Lead Mine

(LIMITED).

PERRANZABULOE, CORNWALL.

To be incorporated under the Companies Acts, 1862 and 1867.

CAPITAL £24,000, IN 12,000 SHARES OF £2 EACH.

5s. per share to be paid on application, 5s. on allotment, and the remainder, if required, by three-monthly calls not exceeding 5s. per share.

DIRECTORS.

WILLIAM EDWARDS, Esq., 43, Hungerford-road, Holloway, N.

ALFRED LEETE, 386, Euston-road, N.W.

(With power to add to their number at the first general meeting.)

BROKER—Mr. F. W. MANSELL, 1, Pinner's-court, Old Broad-street, E.C.

SECRETARY—Mr. GEORGE H. CARDOZO.

OFFICES,—15, NEW BROAD STREET, E.C.

PROSPECTUS.

It is proposed to form a company for purchasing and working this undoubtedly very valuable mine, which is situate in the parish of Perranzabuloe, in the county of Cornwall, and held under lease for 21 years dated June 12, 1869, from Sir R. R. Vyvyan, Bart., at 1-18th lease only.

The grant is a comprehensive one, commanding an extent of 500 fathoms on the lodes, and comprising, competent mining authorities assert, the same lodes as West Chiverton Mine, the great celebrity of which needs no other than a passing allusion. West Chiverton has paid to the shareholders £140,000 in dividends, and the market value of the mine is £120,000, purchased by the present company no longer since than 1863, for £30,000 only.

As a proof of the richness of the produce of the lodes in this mine (Perran Vychan), assays made of the silver-lead and gossan give the following results:—Gossan from No. 2 lode, 9 ozs. 6 dwts. 16 grs. of silver to the ton of ore; No. 2 lode, 36 ozs. of silver to the ton of lead; No. 1 lode 60 per cent. of lead, and 23 ozs. 6 dwts. 16 grs. of silver to the ton of lead ore, equal to West Chiverton, the ore most likely coming from the same lodes.

It is important that there is a stream of water available for dressing purposes, and that the Port of St. Agnes is at no greater distance than two miles from the mine, rendering the conveyance of the ore thereto for shipment, and the

back carriage of engine coals and required materials so easy as will materially favour the general expenditure.

After having expended a considerable amount in discovering and opening out the lodes of this mine, in sinking shafts, and driving levels on them, clearly showing that they will be very abundantly productive at but little below the present workings (some of them having already produced rich ore), the present owners will assign their rights and interest in the lease for 21 years of the mine for its paid shares of £2 each, it being of paramount importance to have the most efficient machinery, means, and appliances brought to bear on the mine for its deeper development in the most expeditious manner, ensuring the earliest success. Greater confidence in this mine could not be shown than in the vendors agreeing to receive payment for their interest in the lease and the amount of money expended entirely in shares.

The original reports of Josiah Hugo Hitchins, consulting engineer of the Devon Great Consols' Mines, Capt. Tregarth, Capt. Gias-ville, and others, with lease, Articles of Association, and specimens of the produce of the lodes (silver-lead ore) are to be seen at the offices of the company. Forms of application for shares may be had of the brokers, or the secretary of the company.

Original Correspondence.

NOVA SCOTIA GOLD FIELDS.

SIR.—The Halifax mail has brought the following advices:—
Waverley (March 22).—The North American property is doing very well. The Tudor not so well as when last reported. The De Wolfe is making the greatest strides; for the past four months the ore from the Union lode has been gradually improving from 7 dwts. up to 15 dwts. per ton, and it is estimated from appearances that it will reach an ounce this month, which, when titrated from the Tudor and north lodes, and with the De Wolfe, will give a very satisfactory balance. Mr. De Wolfe intends resuming work on the Tudor and north lodes, and with the improved facilities he can now command in the labour department, as compared with two years ago, the prospects are decidedly favourable.

Sherbrooke (March 21).—The New York and Sherbrooke Mine has improved in the engine-shaft; the lode, which has been poor, will now give good profits. There is no alteration to notice in other parts of this mine. The good profits of the mine is much the same as when I wrote you last; if all the quartz Wellington Mine has been crushed the yield would have been 200 ozs. The last month has been going on in the old way. In the Cleveland Mine there is no change to notice; it is paying cost, and a little over. The Wentworth Mine is still doing well; they are raising the grade from a bed of slate. The Excelsior Mine is working a lode 4 in. wide, which from late trial crushings gave 2½ ozs. to the ton. It has been a tedious job to open the ground properly, but that now done the mine is likely to pay, and give profit.

GENERAL REMARKS.—We have had a pleasant though a broken winter, and now have the prospects of an early spring—snow all gone from roads. Through the courtesy of a Mines Department official I am enabled to submit a correct table of returns for January and February.

Memorandum of Quartz Crushed and Yield of Gold for January and February, 1871:—

		January.	February.
	Tons Ozs.	Tons Ozs.	Tons Ozs.
CARLTON	D. Tonguey	47 54	—
MONTAGUE	Lawson	51 221	41 185
	Taylor et al.	12 29	36 120
OLDHAM	F. S. Andrews	83 105	75 148
	Several	35 31	30 39
RENFREW	Harford	10 3	42 11
	New Haven	118 103	77 93
	Ophir	40 16	—
RENFREW	Renfrew	277 94	264 73
SHERBROOKE	Donalton	174 109	180 167
	Wellington	352 79	432 73
	Palmerston	478 226	—
	Hamilton	192 55	67 105
	Sherbrooke	29 13	—
	Hayden and Derby	158 159	208 146
	Several	40 5	43 5
STORMONT	Prince Mining Company	—	80* 87
	United Mining Asso. (Gisborne Mine)	—	137 105
	Others	113 71	137 105
TANAGER	Crabtree Hill	40 15	13 7
UNLACKIE	West Lake	15 3	—
	J. C. McKenzie	60 22	—
WINTHARBOUR	Mount Unlackie Company	147 157	277 176
	El Dorado	—	—
	* Slate, &c.	—	—

TERRAS TIN MINE.

SIR.—For the satisfaction of my fellow-shareholders in this valuable property, allow me to say that the reports published by the captain and directors have by no means overstated facts. The engine (50-inch cylinder) is being brought on the ground, the engine and boiler-houses are about 4 ft. above the ground; it is the only one of the kind in the mine, and the engine will be ready for work, but I think it scarcely possible, the energy displayed by the managing director, Mr. Martin, has already accomplished so many extraordinary feats, that it perhaps may be carried out as per contract. The engine-shaft is now down 7 fms. from the surface, well timbered and secured; this shaft is put down north of Edwards's lode, and will probably intersect it at 70 fms. This shaft will serve to drain all the lodes by cross-cuts, and has been most judiciously placed. All the surface work is being pushed forward with an energy and success that should be imitated; the lodes are not only yielding as before, but I can testify they are very much improving, especially the great lode. Let a few months pass over and I feel confident my fellow-adventurers will be, as I am—
 A PERFECTLY SATISFIED SHAREHOLDER IN THE TERRAS TIN MINE.

[ADVERTISEMENT.]

THE QUEEN, THE KING, AND THE VIRTUOUS LADY.

SIR.—I wish to draw the attention of your readers to the reports this week from the different agents. Surely, one and all will now coincide with me that the Queen, the King, and the Virtuous Lady rank already with the most successful mines that England has ever produced, and that immense profits cannot fail to forthwith accrue to those who make an immediate purchase of shares before they further advance in price. I do not intend to dispose of any more of my own interest in the mine, but have special business for clients who, in plain English words, are "hard up," and, in consequence, wish to realize. I am convinced beyond doubt—am positive—that the shares will see a very high price a short season hence, when the patent of our amalgamation process is completed and extracting silver, not at the rate of 204 ozs. in three weeks, at 100 per cent. profit, as has already been accomplished, but thousands of ounces per month, at considerably beyond 100 per cent. profit. The sellers are those who took up shares at first, and through the immediate want of money, satisfied with over 200 per cent. profit upon their outlay, besides 10 per cent. already paid in dividends. I can prove this—in fact, I never say what I cannot prove; and when I do indulge in predictions respecting the future they are founded on facts, and well forth from the heart of, at least, an honest man, and one who would rather lose his right arm than make a statement to willingly deceive the public; if I am wrong it will be through bad judgment. But am I in error; are the words, or are the facts, or are the facts not even my mad effusions, as they have been called by the old school, who designate themselves the practical, respecting the silver amalgamation works, proved to be one of the greatest benefits that could be conferred upon English mining? Are not the very model works in existence, and the 206 ozs. pure silver in my office here, extracted at 100 per cent. profit from 20 tons of common stuff, taken from a heap—a little mountain—that has been lying for it is known 50 years, and perhaps 500 years, exposed to all weather, as a mass of useless rubble? Even now influential men of business in the City of London inform capitalists that I am either an impostor or a fool, and in the name of all that is good and just, I ask what can I do more to prove that such is false? Sensible people can judge for themselves. THOS. J. BARNARD.

Palmerston-buildings, Old Broad-street, City, April 6.

[For remainder of Original Correspondence see this day's Supplement.]

FOREIGN MINES.

PESTARENA UNITED (Gold).—The directors have received a telegram, dated Pallaiza, April 2:—"Gold obtained in March, 493 ozs., from 663 tons of ore."

PACIFIC.—Captain Brown, Lander Hill Mine, March 16: Since I wrote you last I have been obliged to put down a wire-rope in place of the main rod, the wood of which was completely rotted away. I have now put on a new force-pump to relieve the donkey-engine, and this is working well. I have today set the rise in back of the 550 north-west 40 ft., or cut the lode, at 141 per foot. The present engine and pumps will, I think, have to be replaced by larger ones by-and-by.

SWEETLAND CREEK (Gold).—G. D. McLean, March 11: At that time all operations were progressing very satisfactorily, and arrangements were in progress for the clean-up (result of this clean-up was published last week). The agent writes:—"Our prospects are good. The completion of the new tunnel must be hurried on without delay."

COLORADO TERRIBLE.—March 16: I am glad to be able to announce the completion of the tunnel to the south wall of the lode on the evening of Tuesday, March 14. Yesterday the men were engaged in breaking away the south wall, and squaring up to the mineral, which is exposed everywhere to view. In one spot, where it has been molled out, I judge it to be 4 to 6 in. thick, and rich. One thing certain, the breast of the tunnel looks splendid. I have let a small contract of 10 ft. to continue the tunnel across the lode.

WEST CANADA.—F. Williams, March 11: Huron Copper Bay Mine: The stope in the bottom of the 20, east of Stephens' winze, still yields fully 3 tons of ore per fathom. I am sorry to say that the sides at this point have again been giving us some trouble. The stope below the 35, west of Palmer's shaft, is worth 2½ tons per fathom. The lode in the 50, driving west of this level is not quite as productive as it was some time ago, yields 3 tons per fathom. The lode in the 60, driving west of this shaft, still produces 2 tons per fathom. The stope below the 35 is worth 2½ tons per fathom. The stope, east of this shaft, over the 35 never looked better, and yields fully 3½ tons per fathom. The lode in the 35 fm. level, west of this shaft on the fire lode, is worth 1½ tons of ore per fathom.—Wellington Mine: The stope, east of Rowe's shaft, is worth 2½ tons per fathom. The stope on west yields 3 tons per fathom. The lode in Rowe's shaft has become less productive, but yields 2 tons. Our dressing operations are going on in a regular way.

[For remainder of Foreign Mines, see to-day's Supplement.]

BREAKFAST—EPPE'S COCOA—GRATEFUL AND COMFORTING.—The very agreeable character of this preparation has rendered it a general favourite. The Civil Service Gazette remarks:—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Eppe has provided our breakfast tables with a delicately flavoured beverage, which may save us many heavy doctors' bills." Each packet is labelled—JAMES EPPE and Co., Homoeopathic Chemists, London. Also, packets of Eppe's Cocoa, a very light, thin evening beverage.

HOLLOWAY'S PILLS.—The diseases common to our climate which endanger man's physical condition will always exist, though many may be mitigated and their effects removed by timely and appropriate application. Holloway's pills are acknowledged far and wide to be the most effective purifier of the blood, the most certain regulator of disordered organs, and the most innocent aperient that can be prescribed. This medicine is applicable to all alike, young or old, robust or delicate; it increases the appetite and controls all derangements of the bowels. The disorder is subdued, occasional doses of these pills will prevent any relapse, and moreover secure, promote, and intensify the good results which flow from perfect purity and regularity.

THE REINNIE LAXEY MINING COMPANY (LIMITED).

IN LIQUIDATION.

MR. TAGGART WILL SELL, BY AUCTION, on Thursday, the 13th day of April, 1871, at Five o'clock in the afternoon precisely, at the British Hotel, Douglas, Isle of Man, subject to such conditions of sale as shall be then and there produced, all the INTEREST OF THE

REINNIE LAXEY MINING COMPANY (LIMITED).

In the LEASE of all and singular the METALS and METALLIC ORES and MINERAL SUBSTANCES within, under, or upon all that tract or parcel of land, containing in the whole about 400 acres (comprising the "Dhoon Mine"), situate in the parish of Maughol, in the Isle of Man, and known as the Reinnie Laxeay Mine, together with all the PLANT and EFFECTS of the said company in and about the said mine, comprising, amongst other things, ONE WATER WHEEL (50 ft. in diameter), ONE SPUR WHEEL, ONE DRAWING LIFT, ONE CRAB WINCH, WAGONS, sundry TIMBER and IRONWORK, TOOLS and WORKING IMPLEMENTS, &c.

The mine has been worked by the company for about four years, and a shaft (with water wheel, 8 in. pumps, &c.) sunk to intersect the adit level, which has been driven about 140 fms. at a little above the high water mark of the sea.

The mine and effects of the company can be viewed on the morning of sale. For further particulars and conditions of sale apply to the Liquidators of the company, Colonial-buildings, Dale-street, Liverpool; or to Mr. SAMUEL, Solicitor, 14, Cook-street, Liverpool.

VALUABLE COLLIERY IN MONMOUTHSHIRE.

MESSRS. BARNARD, THOMAS, TRIBE, AND CO. WILL SELL, BY AUCTION, at the King's Head Hotel, Newport, on Friday, the 14th April, 1871, at Two for Three o'clock precisely (subject to such conditions as shall be then and there produced), unless previously disposed of by private contract), all that VALUABLE LEASEHOLD COLLIERY, known as

COEDCAE TILLEY COLLIERY

Situate near ABERYSTWYTH, in the BLAINA VALLEY, in the parish of ABERYSTWYTH, in the county of MONMOUTH.

The colliery is worked by level; the coal is adapted for domestic, gas, and manufacturing purposes; and the coke made at these works is greatly esteemed in the manufacture of tin-plates, and also for smelting.

The leases are for a term of coal under about 231 acres, with right of way over the surface to the railway, which connects the works with the port of Newport (about seventeen miles distant), and with the system of railways generally.

The colliery will easily, at a trifling outlay, produce 20,000 tons of coal per annum. One of the present owners would have no objection to continue an interest in it along with the purchaser.

For further particulars, and to view the property, application may be made to Mr. JOHN PRICE, Llanelli, near Newport. To treat apply at the offices of the Auctioneers, Albion Chambers, Bristol; No. 4, Crookherbtown, Cardiff; Temple-street, Swansea; or No. 3, Lothbury, London.

Bristol, March 17, 1871.

GREAT MOELWYN SLATE QUARRIES, NORTH WALES.

IMPORTANT UNRESERVED SALE OF MACHINERY, PLANT, AND EFFECTS.

WHEATLEY KIRK AND PRICE WILL SELL, BY AUCTION, on Friday, April 14th, 1871, commencing at Twelve for

One o'clock prompt, at the GREAT MOELWYN SLATE QUARRIES, TAN-Y-CRISTIAN, near FESTINIOG, on the Port Madoc and Festinog Railway, North Wales, all the VALUABLE and NEARLY NEW PLANT, &c., including—

About 120 tons of light single-headed RAILS and CHAIRS.

Powerful TURBINE, on most improved principle, by Low.

About a quarter of a mile of 10 inch WATER PIPES.

About 5000 GUIDE PULLEYS and CHAIRS.

About four miles of NEW STEEL WIRE ROPE.

FIVE SETS of powerful WINDING DRUMS, and appendages.

PATENT SLATE DRESSING MACHINES.

FOUR PATENT SLATE SAWING MACHINES.

TEN IRON RAIL TRUCKS.

SHAPING, GEARING, PULLEYS, and PEDESTALS.

A quantity of NEW STEEL and IRON BARS; saws, tools, crab, pulley blocks, and other effects.

The Auctioneers beg to draw special attention to the above plant, &c., which are nearly new, and having been sold without reserve, present an unusually favourable opportunity to intending purchasers.

Catalogues to be had of the Auctioneers, 35, Princess-street, Manchester; and at the office of the *Carnarvon and Denbigh Herald*, Carnarvon.

UNRESERVED SALE OF MINE MACHINERY AND MATERIALS,

ON THURSDAY, APRIL 20, 1871.

EAST NEW WHEAL LOVELL, in the parish of CONSTANTINE,

near HELSTON.

MR. W. T. DAVEY WILL SUBMIT TO SALE BY PUBLIC AUCTION, on Thursday, the 20th day of April, 1871, by Twelve for One

o'clock P.M. precisely, on the above mine, the whole of the following

MACHINERY AND MATERIALS—viz.

An excellent 40 in. cylinder PUMPING ENGINE, with 10 ton BOILER and two tubes (complete); a 40 ft. SHEARS; an 8-arm CAPSTAN, with oak axle.

12, 11, and 8 in. pumps.

16 ft. 12 in. flat bottom windrope.

16 ft. 12 in. door piece.

11 ft. 11 in. winding.

11 ft. 10 in. ditto.

16 ft. 11 in. door piece.

19 ft. 11 in. sinking windrope.

14 ft. 12 in. matching piece.

16 ft. 11 in. ditto.

1 shaft balance bob & brasses, complete.

80 fms. 8 in. improved patent capstan rope (new).

100 fms. 8½ in. improved patent whin rope (new).

2 horse whins, with poppet heads (complete).

A lot of useful TIMBER, and various other articles in use on a mine.

The whole of which will be first offered in one lot, together with the leases, and if not sold, then the same will be put up in lots to suit the convenience of purchasers, according to the catalogues.

The Auctioneer solicits a punctual attendance, as the whole will be sold in one day.

Luncheon at Twelve, sale to commence at One P.M. precisely.

For further particulars, apply to the Agent, on the mine; or to Mr. W. T. DAVEY, Auctioneer and Valuer, 1, Penryn-street, Redruth.

LEAD MINES IN THE COUNTIES OF DURHAM AND NORTHUMBERLAND.

TO BE LET, ON LEASE, the HUNSTANWORTH and NEWBIGGIN ROYALTIES, the former about 3534 acres, and the latter

200 acres, or thereabouts.

The Newbiggin Royalty adjoins the celebrated W. B. Lead Mines, and has for many years yielded large quantities of lead ore, and much of the ground is undeveloped.

For particulars, apply to JOSEPH DODDS, Esq., M.P., No. 4, Spring-gardens, Charing Cross, London, S.W.; and Stockton-on-Tees: Mr. NATHANIEL CLARK, Beamish-park, Fence Houses; or Mr. THOMAS J. BEWICK, C.E., No. 2, Westminster-chambers, Victoria-street, London, S.W.; and Haydon Bridge, Northumberland.

TO BE LET, ON LEASE, for a term of years, SEVERAL ACRES of LAND, suitable for MANUFACTURING PURPOSES, advantageously situated on the south bank of the River Tyne, about two miles below Newcastle-on-Tyne, and within a quarter of a mile from the North-Eastern Railway. There is a good quay frontage, with deep water.

Apply to Mr. T. S. BRAMWELL, King-street, quay-side, Newcastle-on-Tyne.

SECONDHAND MINING MACHINERY FOR SALE.

IN FIRST-RATE CONDITION.

PUMPING ENGINES, of various sizes,—viz., 80 in., 70 in., 60 in., 50 in., 40 in., 30 in.

WINDING ENGINES, STAMPING ENGINES, STEAM CAPSTANS, and CRUSHERS of various sizes.

A NUMBER of BOILERS.

PITWORK of all descriptions, and all kinds of MATERIALS required for MINING PURPOSES.

TO BE SOLD, AT MODERATE PRICES.

The 80 in. is nearly new, and with several of the other engines, can be guaranteed of superior make and modern design.

For further particulars, apply to—

MESSRS. HARVEY AND CO., ENGINEERS AND GENERAL MERCHANTS,

HAYLE, CORNWALL,

AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON.

CITY OFFICES (GRESHAM HOUSE), 25½, OLD BROAD STREET,

MANUFACTURERS OF

PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.

SHIPBUILDERS IN WOOD AND IRON.

THE PATENT PNEUMATIC STAMPS

May be SEEN AT WORK AT HAYLE FOUNDRY WHARF, NINE ELMS, by previous application at either of the above addresses.

FOR SALE, a high-class new 14-horse power double-cylinder PORTABLE STEAM ENGINE, with suitable gear, for the threefold purposes of Winding, Pumping, and Crushing.

NEW PORTABLE STEAM ENGINE, a 25-horse power, on advantageous terms for cash or deferred payments, if desired.

SECONDHAND PORTABLE STEAM ENGINES, of the best makers, to be sold cheap, all in excellent condition, some quite equal to new.

Apply to—

BABROWS AND STEWART, ENGINEERS, BANBURY, OXON.

CANNOCK CHASE COAL BY CANAL AND RAILWAY.

THE COMPANY SEND COAL BY RAILWAY, in trucks, TO ALL STATIONS, and LOAD CANAL BOATS at their extensive wharves on the Angley branch of the Birmingham Canal, adjoining the colliery; and also at Hednesford Basin, Cannock.

Also SUPPLY best LAYCOCK'S GARESFIELD FOUNDRY COKE, FIRE BRICKS, and CLAY RETORTS, free on board ship, Tyne Dock, Newcastle-on-Tyne.

Cannel gas coal, 15,000 feet of gas per ton. Illuminating power of gas in standard candles, 32½ candles.

For prices, apply to— **JOHN N. BROWN,**

ANGLESY CHAMBERS, NEW STREET, BIRMINGHAM.

LONDON OFFICE, 455, NEW OXFORD STREET.

ON SALE, ONE 24 in. HORIZONTAL ENGINE; ONE 22 in. HORIZONTAL ENGINE.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE PAIR of COUPLED WINDING ENGINES, cylinders 18 in., with slot link motion. These engines are first-class, and will be sold very cheap.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE TANK LOCOMOTIVE ENGINE, cylinders 14½ in., with copper fire-box and brass tubes. Made by Sharp, Stewart, and Co., of Manchester. ONE TANK LOCOMOTIVE ENGINE, 10 in. cylinders, four wheels coupled. The above engine can be seen running.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ONE 12 in. TANK LOCOMOTIVE ENGINE, four wheels coupled; copper fire-box and brass tubes.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE 53 in. direct-acting PUMPING ENGINE, stroke 9 ft. ONE 36 in. direct-acting PUMPING ENGINE, 6 ft. stroke.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ONE BOGIE LOCOMOTIVE TANK ENGINE, suitable for sharp curves; cylinder, 14½ in.; stroke, 22 in. Copper fire-box and brass tubes. Made by Stephenson and Co., of Newcastle. Will be sold cheap.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, TWO CORNISH BOILERS, 30 ft. by 7 ft. diameter, two flues through each; will work at 60 lbs. on the square inch. TWO CORNISH BOILERS, one flue through each, 20 ft. by 5 ft.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, 18-horse power PORTABLE ENGINE, with reversing gear, suitable for winding. ONE 12-horse PORTABLE ENGINE, ON 8-horse PORTABLE ENGINE. TWO CLAY-GRINDING MILLS, revolving pans, 9 ft. diameter; solid cast-iron rollers, iron frames, complete. These are very massive mills.

Apply, HENRY PARKINSON, 44, Folds-road, Bolton.

ON SALE, ONE PAIR of HORIZONTAL WINDING ENGINES, cylinders each 24 in. diameter, 4 ft. stroke, fitted with slot link motion and Cornish valves; also, WINDING DRUM, 11 ft. diameter, 6 ft. wide, for round wire rope. Indicator nearly new, and will be sold very cheap.

Also, ONE 24 in. HORIZONTAL WINDING ENGINE, stroke 4 ft., fitted with slot link motion, Cornish valves, and winding drums. Will be sold cheap.

Apply to HENRY PARKINSON, 44, Folds-road, Bolton.

FOR SALE, THE UNDERMENTIONED ENGINES:—

ONE 50 in. cylinder PUMPING ENGINE, with ONE BOILER.

ONE 24 in. cylinder ROTARY STEAM ENGINE, with or without BOILER, wrought iron fly-wheel shaft, and 10 ton fly-wheel.

ONE 12 in. cylinder ROTARY STEAM ENGINE, with ONE 6 ton BOILER.

THREE CORNISH BOILERS, from 10 to 12 tons each, in excellent condition.

Also, several CORNISH CRUSHERS, of various sizes.

A 60 feet WATER WHEEL, with hammered iron round shaft, cast-iron sockets, rings, &c.

For further information, apply to—

W. MATHEWS, ENGINEER, TAYSTOCK.

CHAPLIN'S PATENT PORTABLE STEAM ENGINES AND BOILERS.

PRIZE MEDAL, INTERNATIONAL EXHIBITION, 1862.

STATIONARY ENGINE,
From 1 to 35 horse power.
No building required.PORTABLE HOIST,
1 to 30 horse power.
With or without jib.STEAM CRANE,
20 cwt. to 30 tons.
For wharf or rail.CONTRACTOR'S LOCOMOTIVE,
4 to 27 horse power.
For steep inclines and quick curves.TRACTION ENGINE,
6 to 27 horse power.
Light and heavy.SHIP'S ENGINE,
Winding, Cooking, and Distilling.
Passed by Government for half water.

From the STRENGTH, SIMPLICITY, and COMPACTNESS of these ENGINES they are extensively USED for GENERAL PURPOSES, and also in situations where STEAM-ENGINES OF THE ORDINARY CONSTRUCTION CANNOT BE APPLIED.

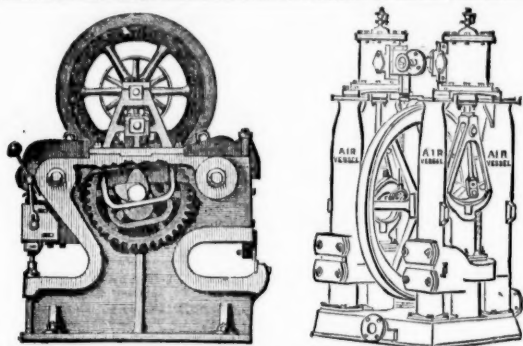
ALEXANDER CHAPLIN AND CO.,

PATENTEES AND SOLE MANUFACTURERS,

CRANSTON HILL ENGINE WORKS, GLASGOW.

ENGINES OF EACH CLASS KEPT IN STOCK for SALE or HIRE, and ALL OUR MANUFACTURES GUARANTEED as to EFFICIENCY, MATERIAL, and WORKMANSHIP.

Parties are cautioned against using or purchasing imitations or infringements of these patent manufactures.
AGENTS IN LONDON FOR THE SALE OF OUR MANUFACTURES: WIMSHURST AND CO.



JOHN CAMERON,

MAKER OF

STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS,
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING
MACHINES, PATENTEE OF THE DOUBLE CAM LEVER
PUNCHING MACHINE, BAR SHEARS, AND RAIL
PUNCHING MACHINES,
**EGERTON STREET IRON WORKS,
HULME, MANCHESTER.**

URIAH NICHOLS

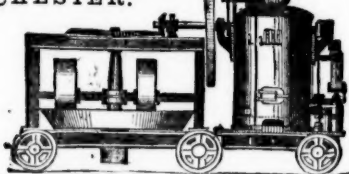
Late Nathan Gough, A.I.C.E.,

ENGINEER,

And Manufacturer of

Portable Engines, Pumps, Cranes, Mortar

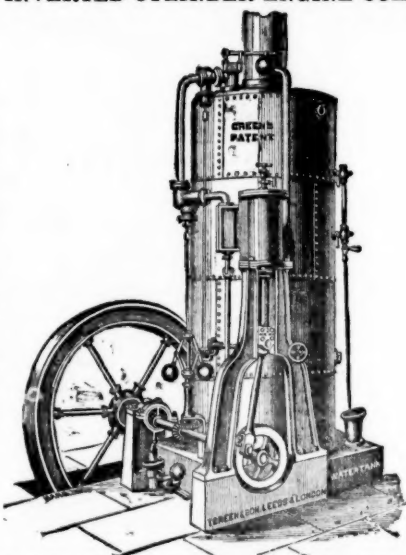
Mills, &c., &c.,

BACK QUAY STREET WORKS,
MANCHESTER.

GREEN'S PATENT BOILERS,

WITH INVERTED CYLINDER ENGINE COMBINED.

Specialty adapted for Contractors, Joiners, and Builders,
Cabinet-makers, Brick-makers, Farmers, Mills, Dye-
houses, Workshops, Printing-offices, &c.



For Exportation they are invaluable, being sent out in
complete working order, ready for
immediate use.

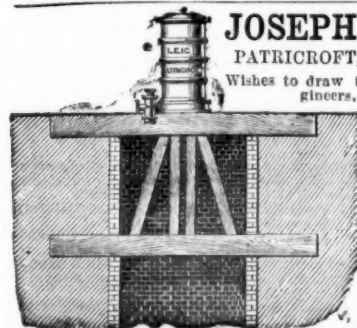
The above Engines and Boilers are constructed in an exceedingly substantial
and simple manner, every part being easy of access, consequently can be readily
understood and managed; they are fitted with governors, equilibrium throttle
valve, stop valve, safety valve, feed pump, water and steam gauges complete.
The foundation plate answers the purpose of feed water tank, in which the
water is heated before passing into the boiler, and also of an ash-pit, and no
brickwork or foundation is required.

N.B.—Upwards of 600 of these Engines and Boilers are now at work, giving
entire satisfaction.
Illustrated PRICE LISTS free on application to
THOMAS GREEN AND SON,
SMITHFIELD IRONWORKS, LEEDS;
And 54 and 55, Blackfriars-road, London, S.E.

JOSEPH D. LEIGH,

PATRICROFT, near MANCHESTER,
Wishes to draw the attention of Mining En-
gineers, and others, to his

IMPROVED

DIRECT-ACTING
PUMPING
ENGINE.Also, every description of
WINDING
ENGINES.

PORTABLE ENGINES,

FROM 4 TO 25-HORSE POWER.

THRASHING MACHINES,

Single, Double, and Treble Blast, with Patent Rolled Steel Beater Plates, and all other Recent Improvements.

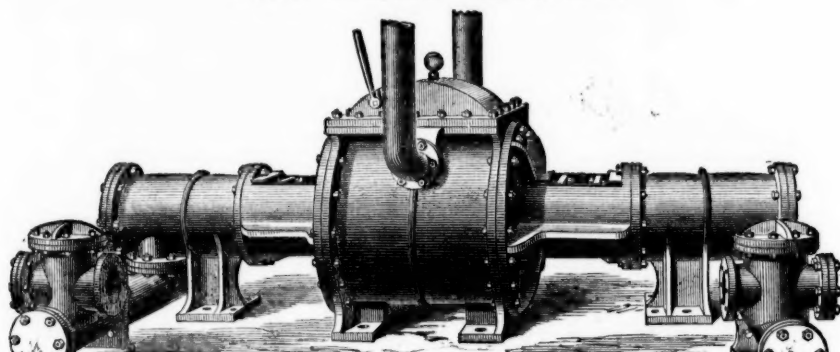
CLAYTON & SHUTTLEWORTH,

Stamp End Works, Lincoln; and 78, Lombard Street, London.

CATALOGUES ON APPLICATION. FREE BY POST.

HAYWARD TYLER AND CO.'S

PATENT STEAM PUMPING MACHINERY FOR DEEP MINES.



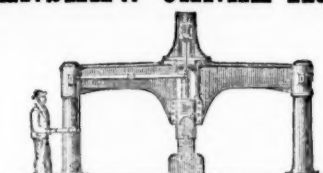
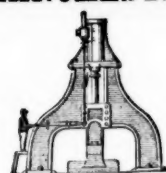
The Machine erected in South Wales (at the Broad Oak Colliery, Loughor, near Llanelly), has a steam cylinder 40 inches dia-
meter and two plungers of 8 inches diameter, and is raising 15,000 gallons of water per hour, the steam-boiler being on the sur-
face. This it does with the greatest ease, the pump-valves working with scarcely any perceptible sound. The length of the
incline besides the vertical lift is at present about 250 yards. The pump is constructed to be moved down the working as it
advances, and is calculated to force the water to a height of 700 feet through a horizontal distance of 490 yards. For full descrip-
tion see *Mining Journal*, *Colliery Guardian*, *Engineering*, &c.

Sole Makers, HAYWARD TYLER & Co., Hydraulic Engineers,

84 and 85, UPPER WHITECROSS STREET, LONDON, E.C.

PRIZE MEDALS—PARIS, 1867; HAVRE, 1868; HIGHLAND SOCIETY, 1870.

B. & S. MASSEY, OPENSHAW CANAL IRONWORKS, MANCHESTER.

Special
Steam Stamp.Hammer for General
Smith Work, &c.Hammer for Wheel-making,
Copper Work, &c.Hammer for General
Smith Work, &c.Hammer for Heavy
Forgings.

PATENTEES AND MAKERS OF DOUBLE AND SINGLE-ACTING STEAM HAMMERS of all sizes, from 17 lbs. to
20 tons, with Self-acting or Hand Motions, in either case giving a perfectly DEAD-BLOW, while the former may be worked by hand when desired.
Large Hammers, with Improved Framing, in Cast or Wrought Iron. Small Hammers working up to 500 blows per minute, in some cases being
worked by the foot of the smith, and not requiring any separate driver.

SPECIAL STEAM STAMPS, of great importance for Smith Work, Bolt-making, Punching, Bending, &c.
Hammers for Engineers, Machinists, Shipbuilders, Steel Tilters, Millwrights, Copper-smiths, Railway Carriage and Wagon Builders, Colliery Proprietors,
Ship Smiths, Bolt Makers, Cutlers, File Makers, Spindle and Flyer Makers, Spade Makers, Locomotive and other Wheel Makers, &c.; also for use in Repair-
ing Smithies of Mills and Works of all kinds, for Straightening Bars, Bending Cranks, Breaking Pig-iron, &c.

STEAM HAMMERS AND STEAM STAMPS MAY ALWAYS BE SEEN AT WORK.

PATENT

"NE PLUS ULTRA" RESPIRATOR,

FOR

Coal Mines, Fire Brigades, Gas Companies,
Breweries, Foul Wells, Chemical Works,
Steam Ships, &c., &c.

This NEW RESPIRATOR is offered to the public as an INVALUABLE MEANS for SAVING
LIFE and PROPERTY.

CERTIFICATE.

"I have used it successfully at several fires, and can with confidence recommend it as one of the
most useful inventions that has ever been discovered to assist firemen in the discharge of their duties."
(Signed)

ALFRED TOZER,

Superintendent Fire Brigade, Manchester.

PRICES:—No. 1, £8 8s.; No. 2, £9 9s.; No. 3, £10 10s. Goggles for firemen
10s. each extra. Lamps for collieries extra.

For particulars, apply to—

JAMES SINCLAIR,

46, CORPORATION STREET, MANCHESTER
9B, NEW BROAD STREET, LONDON.



AWARDED TWENTY GOLD AND SILVER FIRST-CLASS PRIZE MEDALS.

IMMENSE SAVING OF LABOUR.

TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, MACADAM ROAD MAKERS, &c., &c.

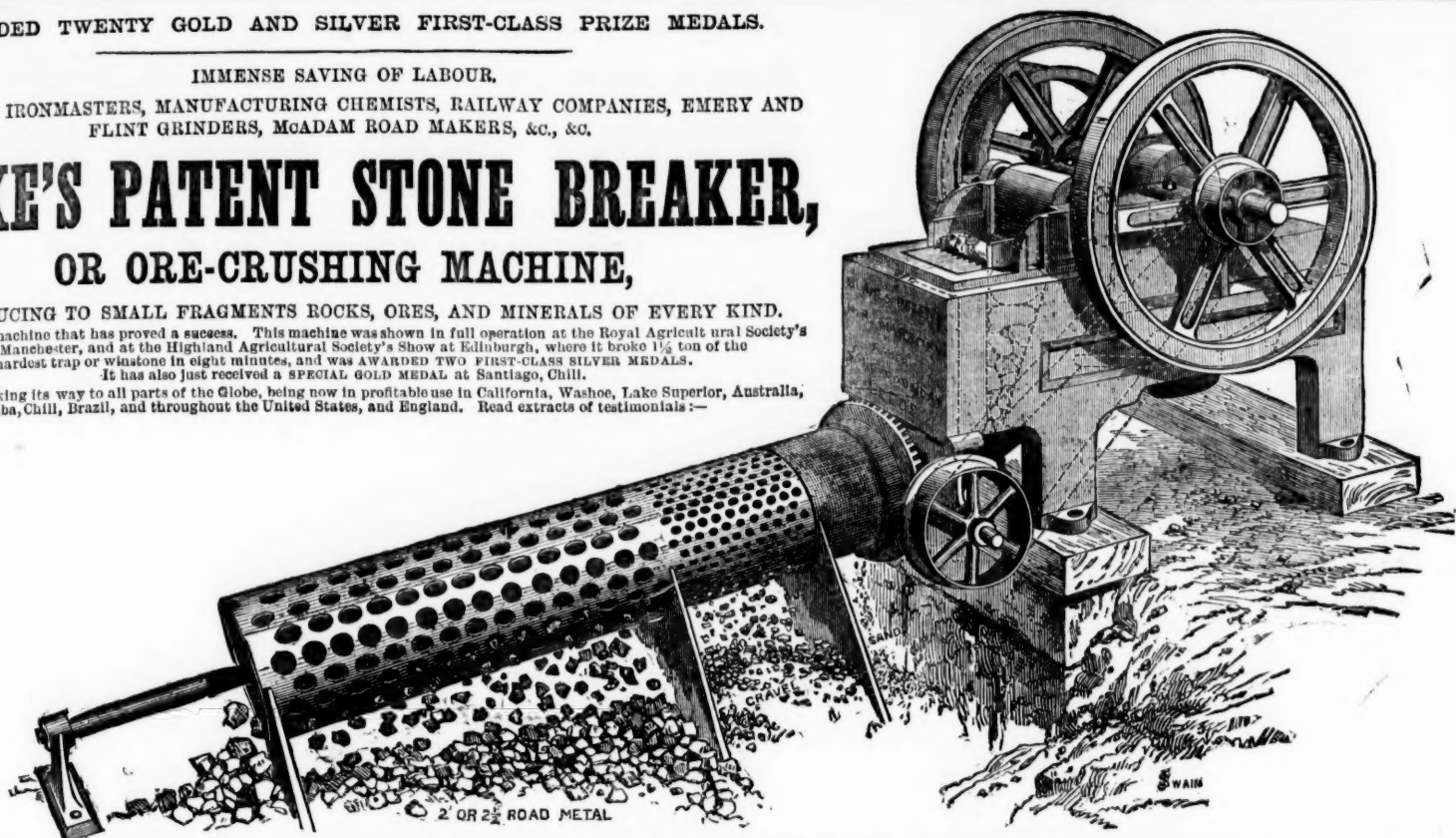
BLAKE'S PATENT STONE BREAKER, OR ORE-CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

This is the only machine that has proved a success. This machine was shown in full operation at the Royal Agricultural Society's Show at Manchester, and at the Highland Agricultural Society's Show at Edinburgh, where it broke 1½ ton of the hardest trap or winstone in eight minutes, and was AWARDED TWO FIRST-CLASS SILVER MEDALS.

It has also just received a SPECIAL GOLD MEDAL at Santiago, Chili.

It is rapidly making its way to all parts of the Globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States, and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last 12 months, and Capt. Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.

H. R. Marsden, Esq.

For the Parys Mining Company.

JAMES WILLIAMS.

Eaton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaws about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.

H. R. Marsden, Esq.

THOS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent.

WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stone and quartz.

WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard winstone in 20 minutes, for fine road metal, free from dust.

Messrs. ORD and MADDISON.

Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton.

JOHN LANCASTER.

Oreoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour.

WM. G. ROBERTS.

General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.

SILAS WILLIAMS.

Your stone breaker gives us great satisfaction. We have broken 101 tons of Spanish pyrites with it in seven hours.

H. R. Marsden, Esq.

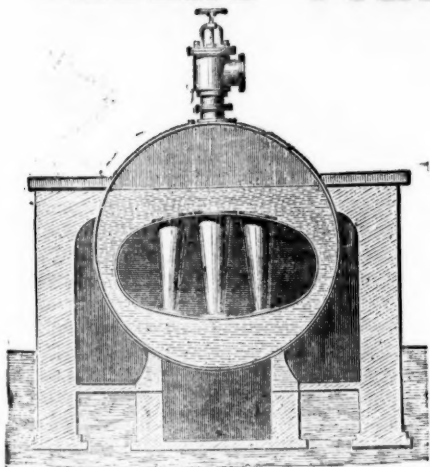
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4000 Brookwood, c. Buckfastleigh	1 10 0 ..	4000 Bedford United, c. Tavistock	4 6 2 ..
4000 Bwch Consols, c. Cardigan*	4 0 0 ..	20000 Blaen Gaeilan, c. Cardigan*	1 0 0 ..
6100 Cashwell, c. Cumberland	2 10 0 ..	20000 Brynmawr, c. Cardigan*	1 0 0 ..
9140 Carrall, c. Newlyn	16 7 7 ..	7500 Brynawr, c. Cardigan*	2 5 0 ..
2450 Cook's Kitchen, c. Illogan*	19 14 9 ..	6000 Budnick Consols, c. Perran	5 0 0 ..
8670 Cwm Erwin, c. Cardigan*	7 10 0 ..	6000 Budnick Consols, c. Cardigan*	3 5 0 ..
128 Cwmystwith, c. Cardigan*	60 0 0 ..	30000 Calbeck Fells, c. Cardigan*	1 17 6 ..
2800 Derwent Mines, c. Durham	300 0 0 ..	9100 Cardon Consols, c. St. Cleer	3 16 0 ..
1024 Devon Gt. Consols, c. Tavistock	1 0 0 ..	6400 Cardigan Bay, c. Aberystwyth	5 0 0 ..
654 Ding Dong, c. Gwynedd	49 14 6 ..	6000 Castle an Dinas, c. Cardigan*	3 0 0 ..
1432 Ding Dong, c. Gwynedd	32 4 6 ..	3000 Cefn Brynno (lim. to), c. Cardigan*	2 0 0 ..
12800 Drake Wells, c. Calstock	2 10 0 ..	6000 Cefn Consols, c. Flintshire*	5 0 0 ..
6144 East Cardon, c. St. Cleer	2 14 6 ..	256 Condurrow, c. St. Cleer	76 10 0 ..
300 East Darren, c. Cardigan*	32 0 0 ..	50000 Connerre, c. sul, Wexford	1 0 0 ..
6400 East Pool, c. St. Pool, Illogan	0 9 9 ..	1055 Craddock Moor, c. St. Cleer	15 8 0 ..
1906 East Wheel Lovell, c. Wendron	3 9 0 ..	50000 Crever & Wheel Abraham	2 0 0 ..
5000 Foxdale, c. Isle of Man*	25 0 0 ..	4000 Cwm Fron, c. Llandidloes	0 10 0 ..
5000 Frank Mills, c. Christow	3 18 6 ..	4000 Cwm Ricket, c. Llandidloes	2 15 0 ..
3950 Ganton, c. Tavistock	3 10 6 ..	4000 Cwm Ricket, c. Llandidloes	0 15 0 ..
15000 Great Laxey, c. Isle of Man*	4 0 0 ..	5000 Duchy and Stuckley, ant.	1 0 0 ..
3000 Great Northern Manganese*	5 0 0 ..	20000 Dyffryn, c. Llandidloes	1 0 0 ..
8000 Great North Wales, c. Helston	40 0 0 ..	2586 East Bottle Hill, Plympton, c.	1 6 6 ..
10240 Gunnslake (Clitters), c.	4 19 0 ..	6000 East Cambrian, c. Redruth	6 6 6 ..
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26000 Hillbush and Kelly Bray, c.	1 0 0 ..	5000 East Dolven, c. Cardigan*	12 2 6 ..
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11200 Providence, c. Llandidloes	10 6 7 ..	4096 Great Cardon, c. St. Agnes	5 0 0 ..
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612 South Cardon, c. St. Cleer	5 5 6 ..	3000 Great Rock, c. Corwen	4 5 0 ..
6000 South Darren, c. Cardigan*	3 6 6 ..	4096 Great Roydon, c. Roche	1 1 0 ..
937 South Wh. Croft, c. Illogan	24 10 0 ..	25000 Great Saffell, c. Llandidloes	5 0 0 ..
496 So. Wh. Frances, c. Illogan	18 19 9 ..	6000 Gt. S. Chiverton, c. Perran	3 0 0 ..
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12288 Wheel Bassett, c. Calstock	10 0 0 ..	6400 Holyfield, c. Llandidloes	1 0 0 ..
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896 Wheel Margaret, c. Llandidloes	13 17 6 ..	5120 Lovell Consols, c. Wendron	0 3 0 ..
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1000 Wh. Mary Hutchins, c. Llandidloes	2 12 6 ..	3000 Mineral Bottom, c. Llandidloes	2 10 0 ..
80 Wheel Oates, c. St. Just	70 0 0 ..	6000 Mold, c. Llandidloes	5 0 0 ..
12000 Wheel Russell, c. Tavistock	2 0 0 ..	6144 Nangles, c. c. Llandidloes	7 8 0 ..
396 Wheel Seton, c. c. Camborne	60 0 0 ..	12000 Nantow Consols, c. Cardigan*	1 0 0 ..
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16000 Cape Copper Mining*	7 0 0 ..	0 1 6 ..	0 6 6 ..
30000 Central American Association*	0 15 0 ..	0 6 0 ..	0 10 0 ..
21000 Colorado Terrible, c. Colorado*	5 0 0 ..	0 2 6 ..	0 6 6 ..
10000 Copiapo Mining Co., Chile	16 10 0 ..	0 4 0 ..	0 4 0 ..
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60000 South Australia, c. Nevada*	5 0 0 ..	0 7 2 ..	0 9 6 ..
11000 St. John del Rey, Brazil*	15 0 0 ..	81 10 0 ..	0 4 0 ..
15000 Sweetland Creek, c. California*	4 0 0 ..	0 12 0 ..	0 4 0 ..
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